S00P1289

FIG. 1

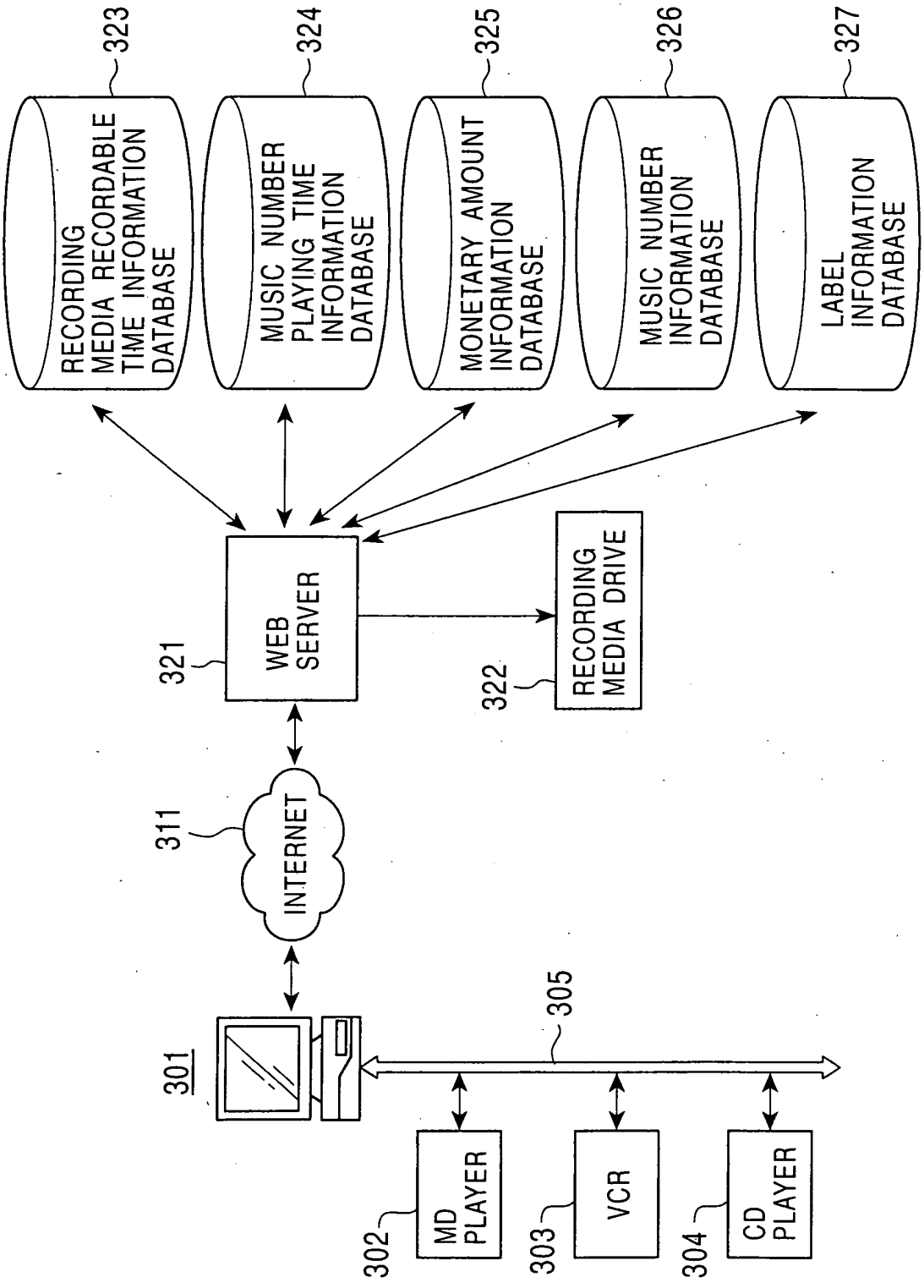


FIG. 2A

CD-R	74 MINUTES
MD	74 MINUTES

FIG. 2B

	MP3	ATRAC3(SP)	ATRAC3(LP)
MS16M	16 MINUTES	20 MINUTES	32 MINUTES
MS64M	64 MINUTES	81 MINUTES	128 MINUTES

FIG. 3

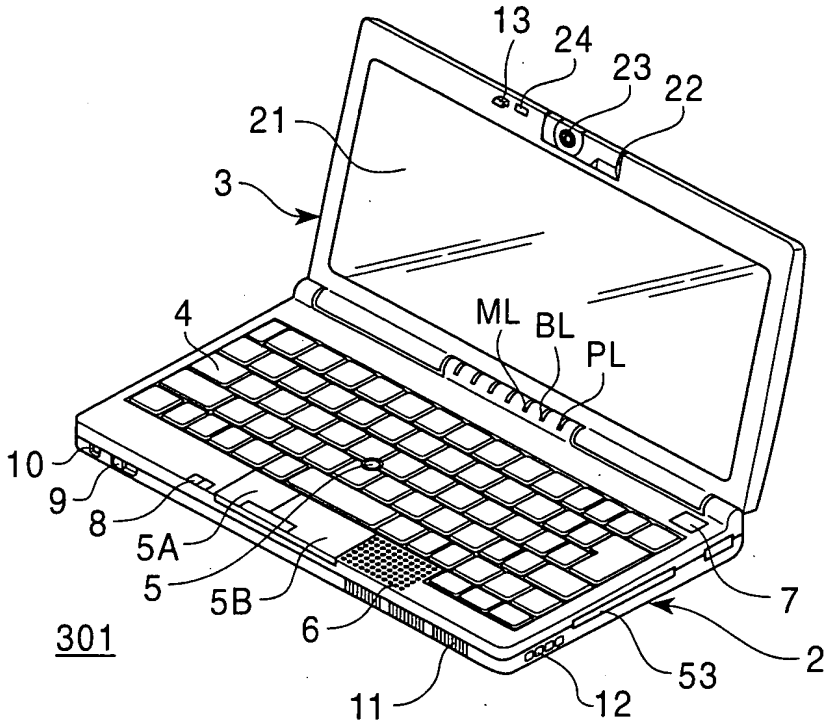

13
24
23
22
21
3
4
ML
BL
PL
10
9
8
5A
5
5B
6
301
7
2
53
11
12

FIG. 4

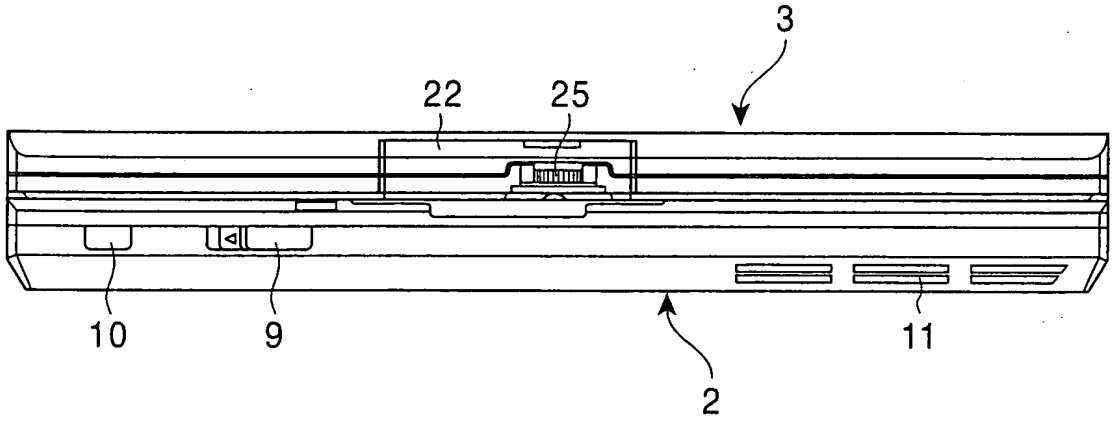

3
22
25
10
9
11
2

FIG. 5

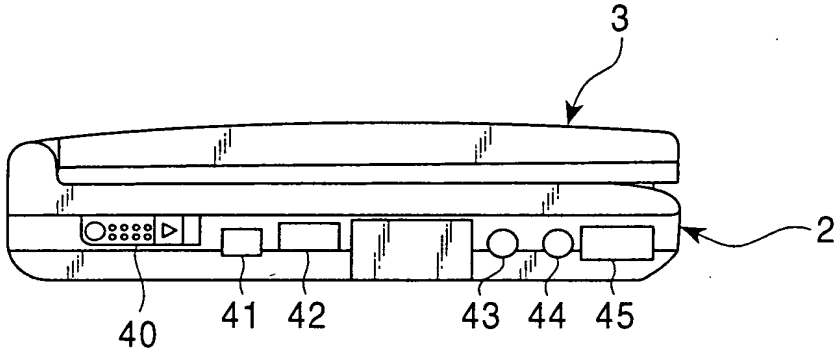


FIG. 6

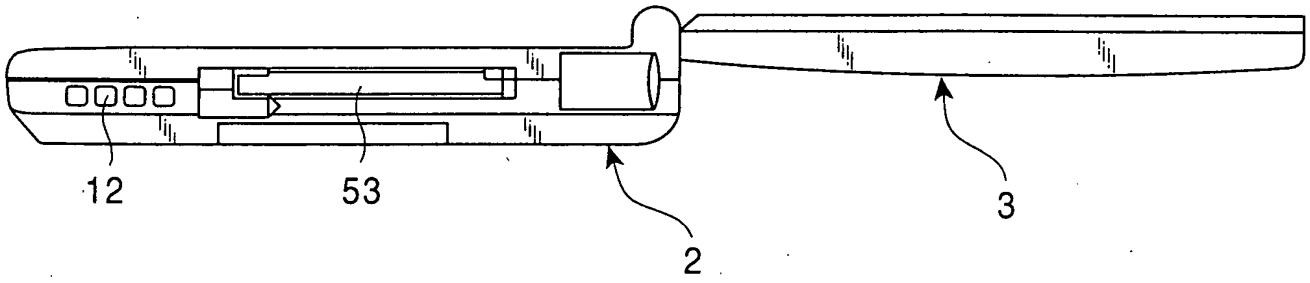


FIG. 7

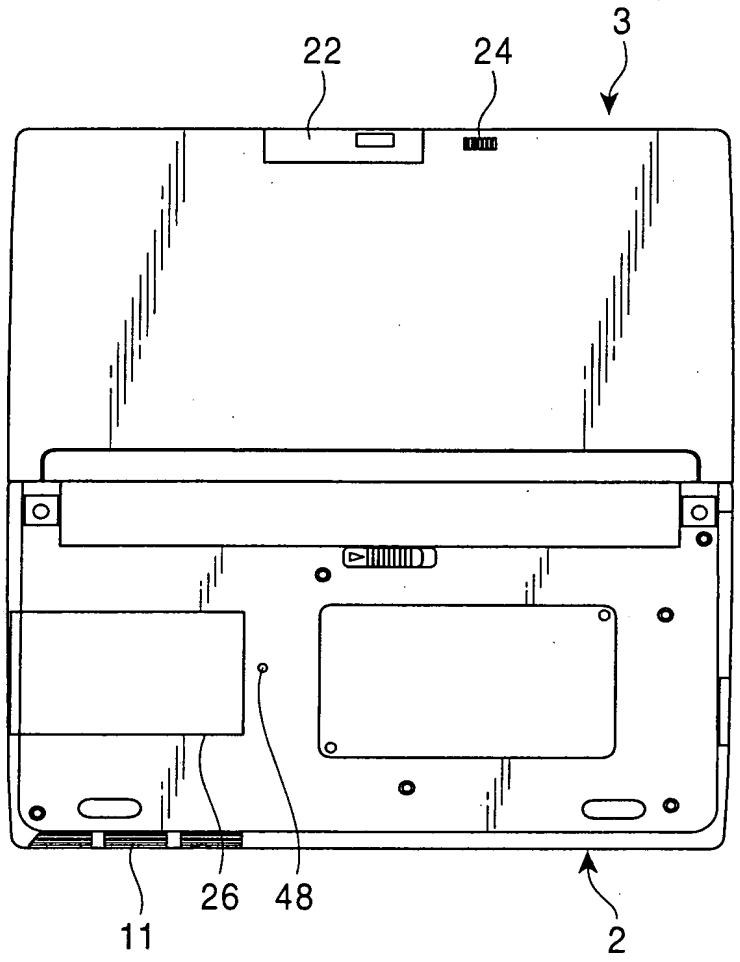


FIG. 8

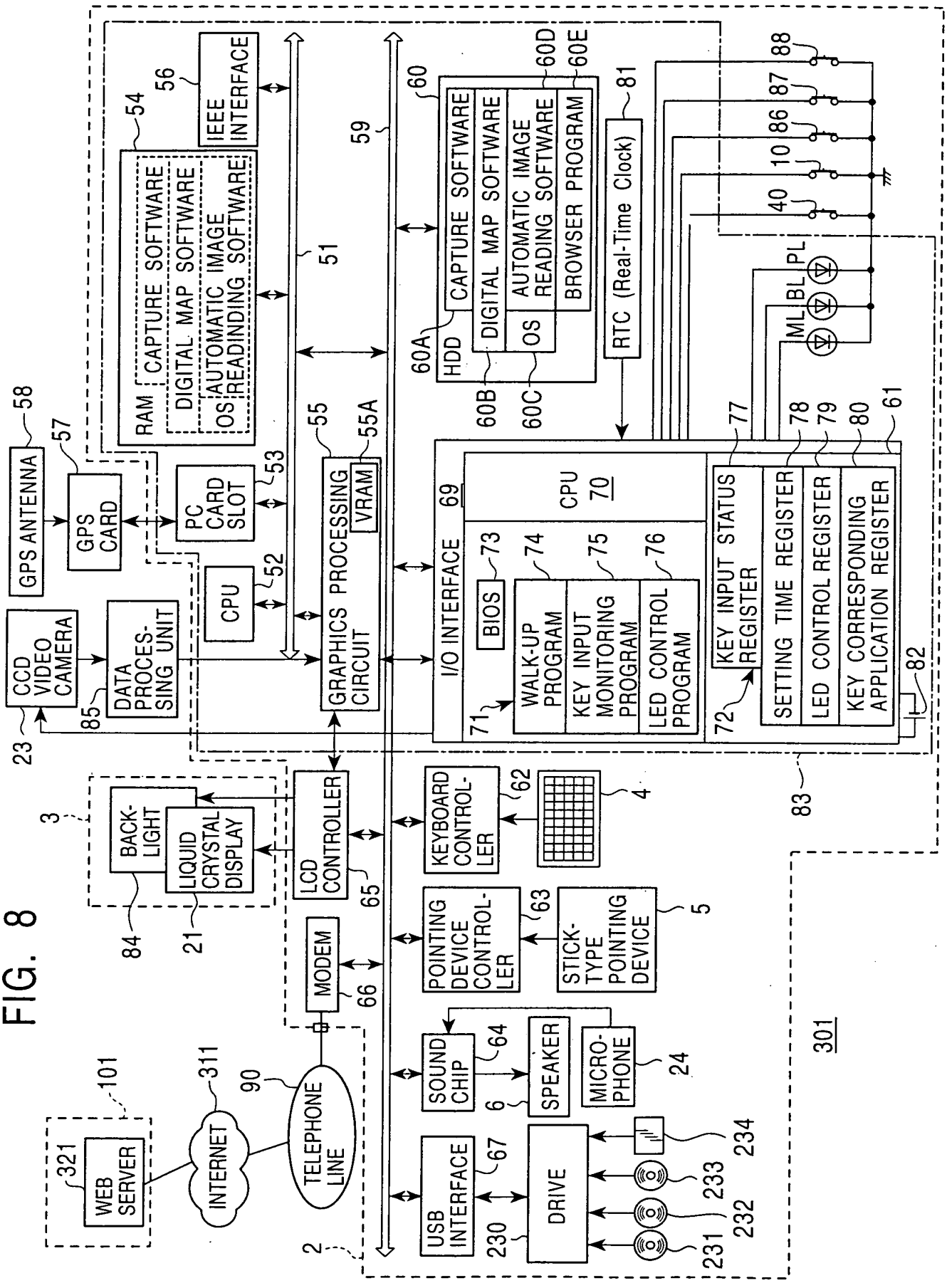

301
2
RAM
CAPTURE SOFTWARE
DIGITAL MAP SOFTWARE
OS
AUTOMATIC IMAGE READING SOFTWARE
54
56
IEEE INTERFACE
59
51
60
HDD
CAPTURE SOFTWARE
DIGITAL MAP SOFTWARE
OS
AUTOMATIC IMAGE READING SOFTWARE
BROWSER PROGRAM
60A
60B
60C
60D
60E
81
RTC (Real-Time Clock)
GPS ANTENNA
58
GPS CARD
57
PC CARD SLOT
53
CPU
52
GRAPHICS PROCESSING CIRCUIT
VRAM
55
55A
CCD VIDEO CAMERA
23
DATA PROCESSING UNIT
85
I/O INTERFACE
69
BIOS
73
WALK-UP PROGRAM
74
KEY INPUT MONITORING PROGRAM
75
LED CONTROL PROGRAM
76
71
CPU
70
KEY INPUT STATUS REGISTER
77
SETTING TIME REGISTER
78
LED CONTROL REGISTER
79
KEY CORRESPONDING APPLICATION REGISTER
80
72
82
61
83
ML
BL
PL
88
87
86
10
40
3
BACK-LIGHT
LIQUID CRYSTAL DISPLAY
84
21
LCD CONTROLLER
65
KEYBOARD CONTROLLER
62
4
POINTING DEVICE CONTROLLER
63
STICK-TYPE POINTING DEVICE
5
MODEM
66
SOUND CHIP
64
6
SPEAKER
MICRO-PHONE
24
USB INTERFACE
67
230
DRIVE
231
232
233
234
TELEPHONE LINE
90
INTERNET
311
WEB SERVER
321
101

FIG. 9

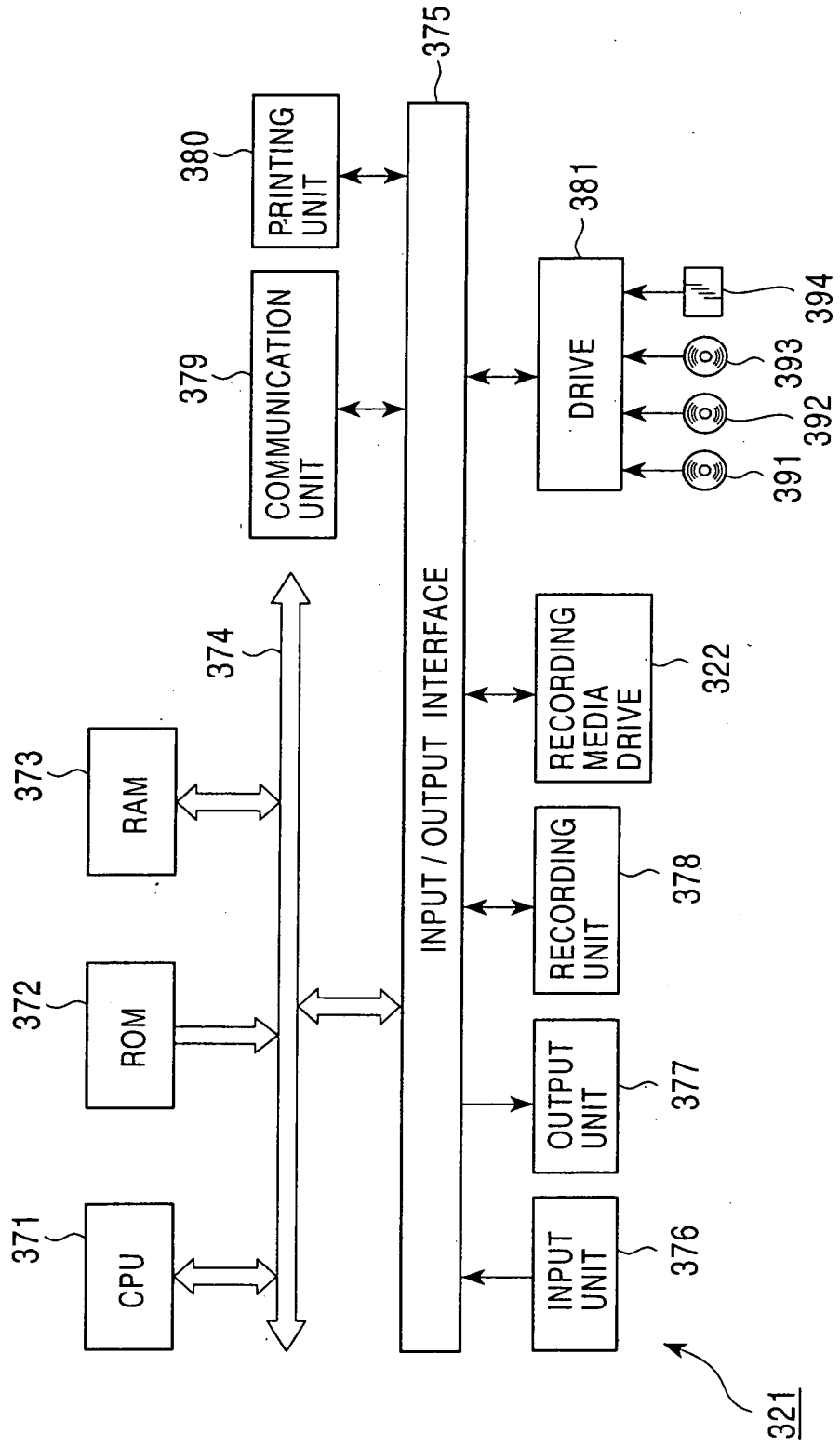

321
CPU
371
ROM
372
RAM
373
374
INPUT UNIT
376
OUTPUT UNIT
377
RECORDING UNIT
378
RECORDING MEDIA DRIVE
322
INPUT / OUTPUT INTERFACE
375
COMMUNICATION UNIT
379
PRINTING UNIT
380
DRIVE
381
391
392
393
394

FIG. 10

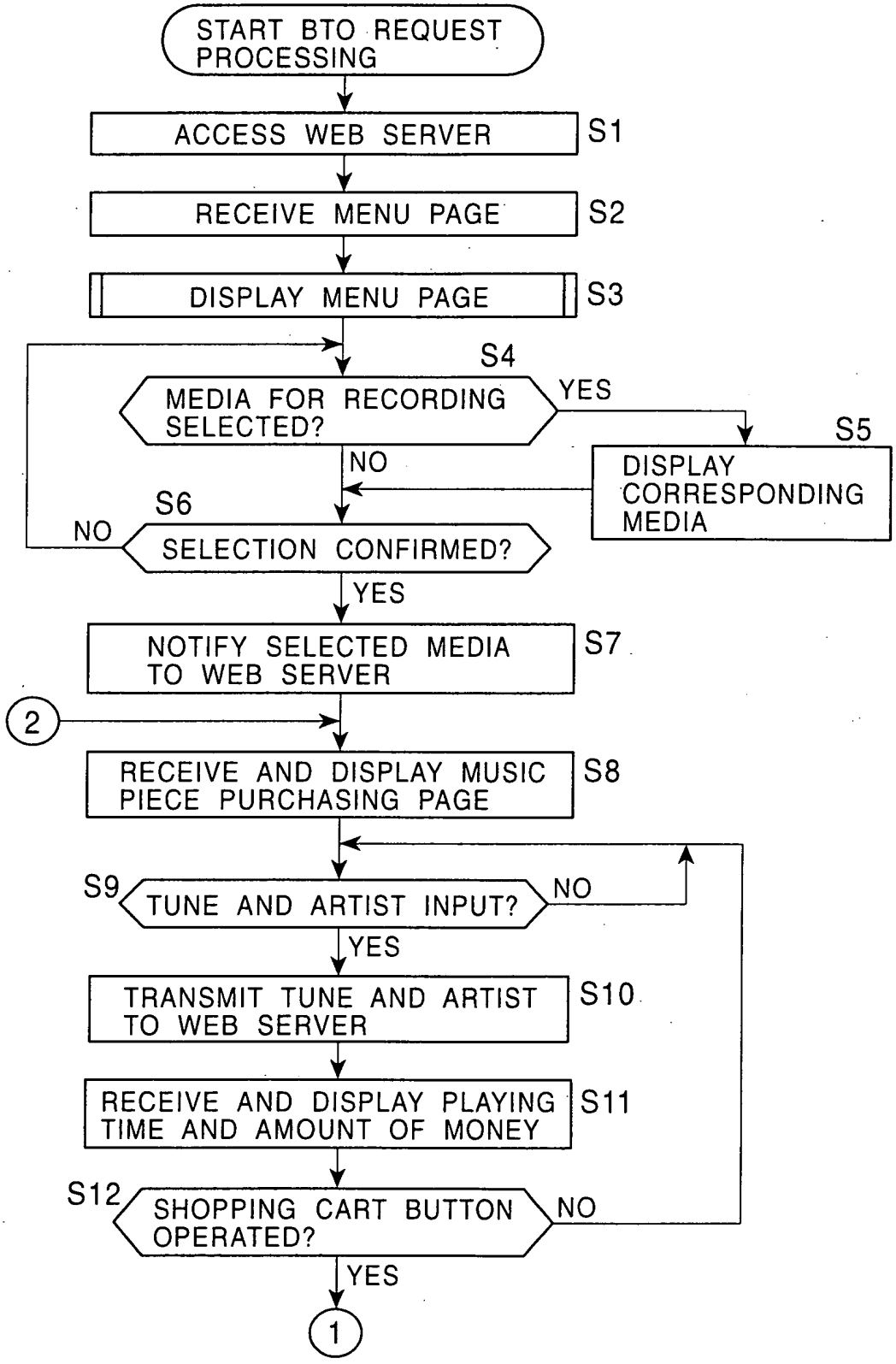

START BTO REQUEST PROCESSING
ACCESS WEB SERVER
S1
RECEIVE MENU PAGE
S2
DISPLAY MENU PAGE
S3
S4
MEDIA FOR RECORDING SELECTED?
YES
S5
DISPLAY CORRESPONDING MEDIA
NO
S6
NO
SELECTION CONFIRMED?
YES
NOTIFY SELECTED MEDIA TO WEB SERVER
S7
2
RECEIVE AND DISPLAY MUSIC PIECE PURCHASING PAGE
S8
S9
TUNE AND ARTIST INPUT?
NO
YES
TRANSMIT TUNE AND ARTIST TO WEB SERVER
S10
RECEIVE AND DISPLAY PLAYING TIME AND AMOUNT OF MONEY
S11
S12
SHOPPING CART BUTTON OPERATED?
NO
YES
1

FIG. 11

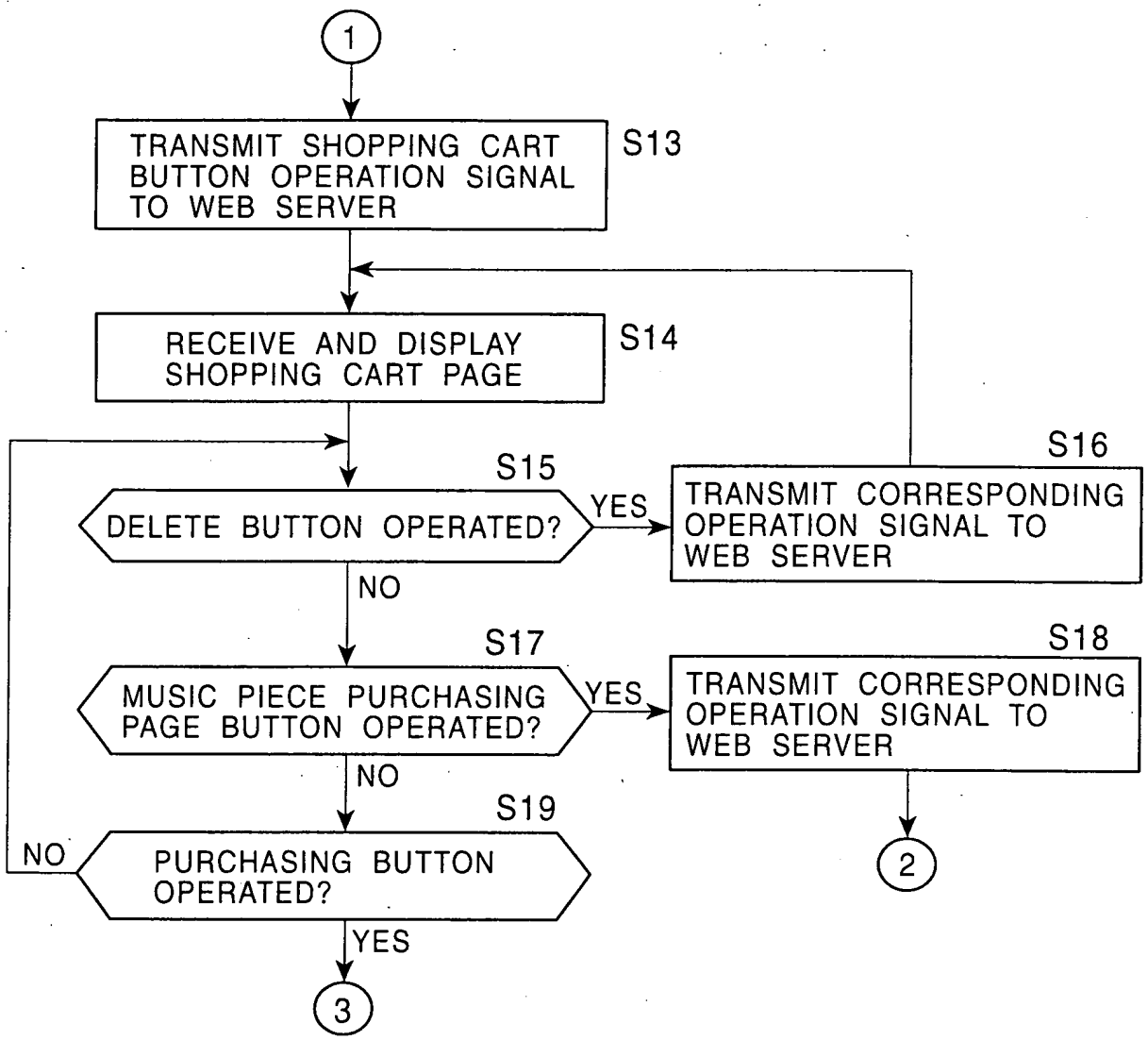

1
TRANSMIT SHOPPING CART BUTTON OPERATION SIGNAL TO WEB SERVER
S13
RECEIVE AND DISPLAY SHOPPING CART PAGE
S14
S15
DELETE BUTTON OPERATED?
YES
S16
TRANSMIT CORRESPONDING OPERATION SIGNAL TO WEB SERVER
NO
S17
MUSIC PIECE PURCHASING PAGE BUTTON OPERATED?
YES
S18
TRANSMIT CORRESPONDING OPERATION SIGNAL TO WEB SERVER
NO
S19
NO
PURCHASING BUTTON OPERATED?
YES
2
3

FIG. 12

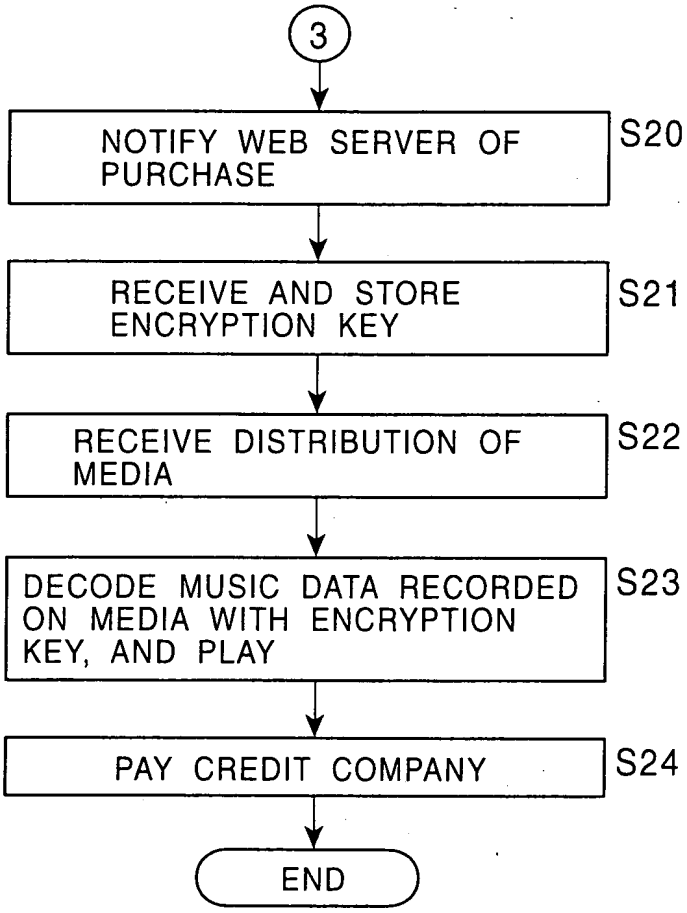

3
NOTIFY WEB SERVER OF PURCHASE
S20
RECEIVE AND STORE ENCRYPTION KEY
S21
RECEIVE DISTRIBUTION OF MEDIA
S22
DECODE MUSIC DATA RECORDED ON MEDIA WITH ENCRYPTION KEY, AND PLAY
S23
PAY CREDIT COMPANY
S24
END

FIG. 13

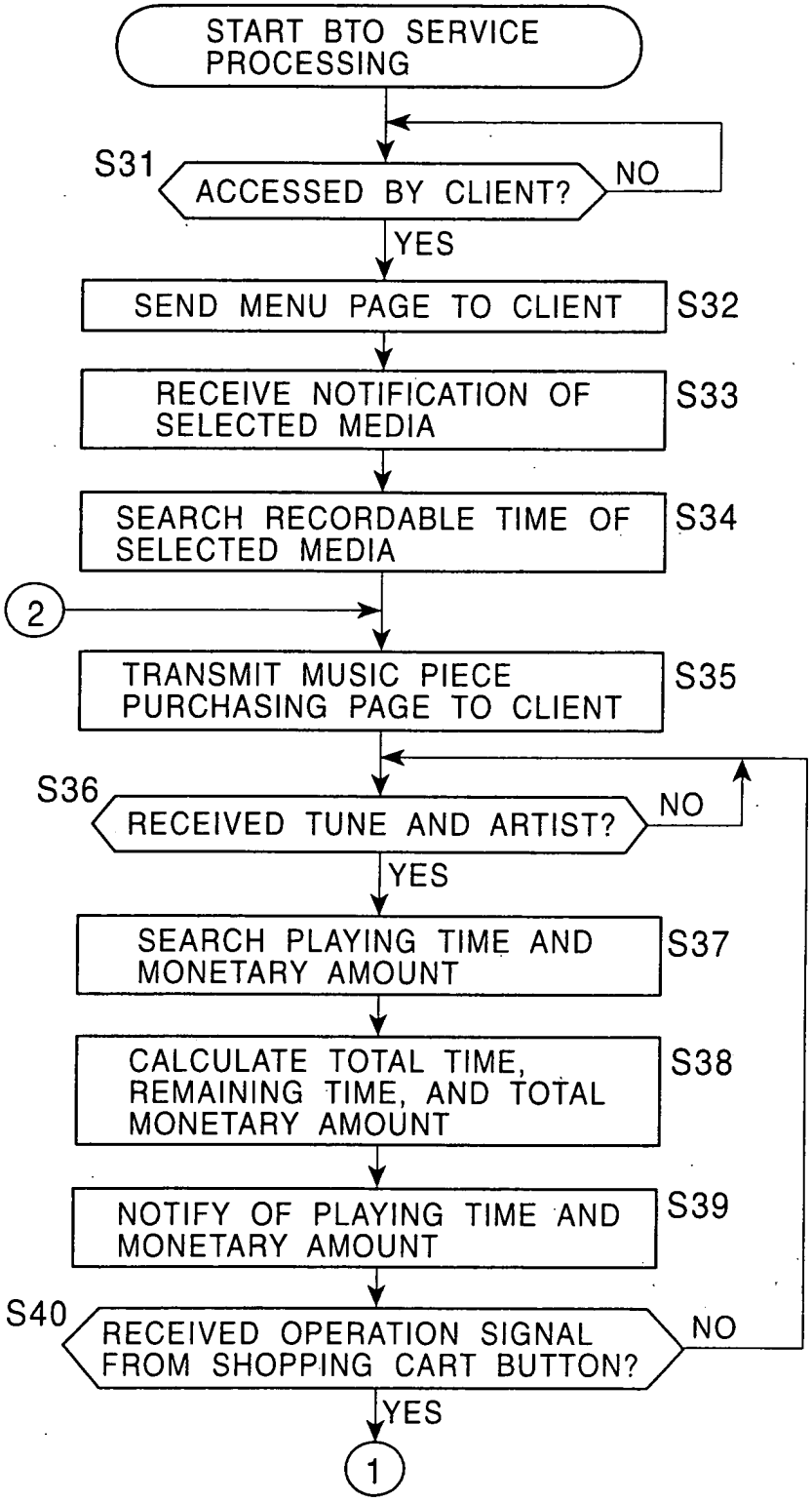

START BTO SERVICE PROCESSING
S31
ACCESSED BY CLIENT?
NO
YES
SEND MENU PAGE TO CLIENT
S32
RECEIVE NOTIFICATION OF SELECTED MEDIA
S33
SEARCH RECORDABLE TIME OF SELECTED MEDIA
S34
2
TRANSMIT MUSIC PIECE PURCHASING PAGE TO CLIENT
S35
S36
RECEIVED TUNE AND ARTIST?
NO
YES
SEARCH PLAYING TIME AND MONETARY AMOUNT
S37
CALCULATE TOTAL TIME, REMAINING TIME, AND TOTAL MONETARY AMOUNT
S38
NOTIFY OF PLAYING TIME AND MONETARY AMOUNT
S39
S40
RECEIVED OPERATION SIGNAL FROM SHOPPING CART BUTTON?
NO
YES
1

FIG. 14

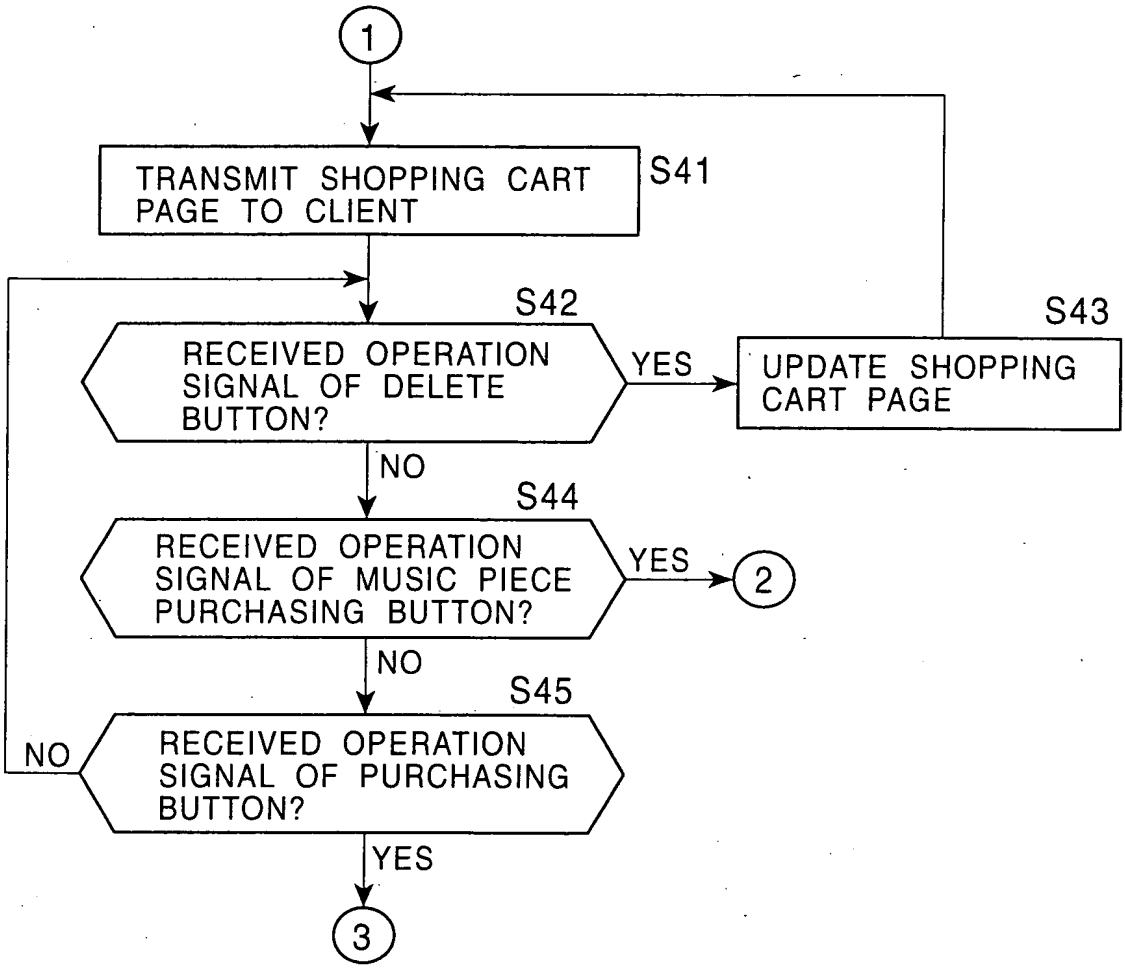

1
TRANSMIT SHOPPING CART PAGE TO CLIENT
S41
S42
RECEIVED OPERATION SIGNAL OF DELETE BUTTON?
YES
S43
UPDATE SHOPPING CART PAGE
NO
S44
RECEIVED OPERATION SIGNAL OF MUSIC PIECE PURCHASING BUTTON?
YES
2
NO
S45
NO
RECEIVED OPERATION SIGNAL OF PURCHASING BUTTON?
YES
3

FIG. 15

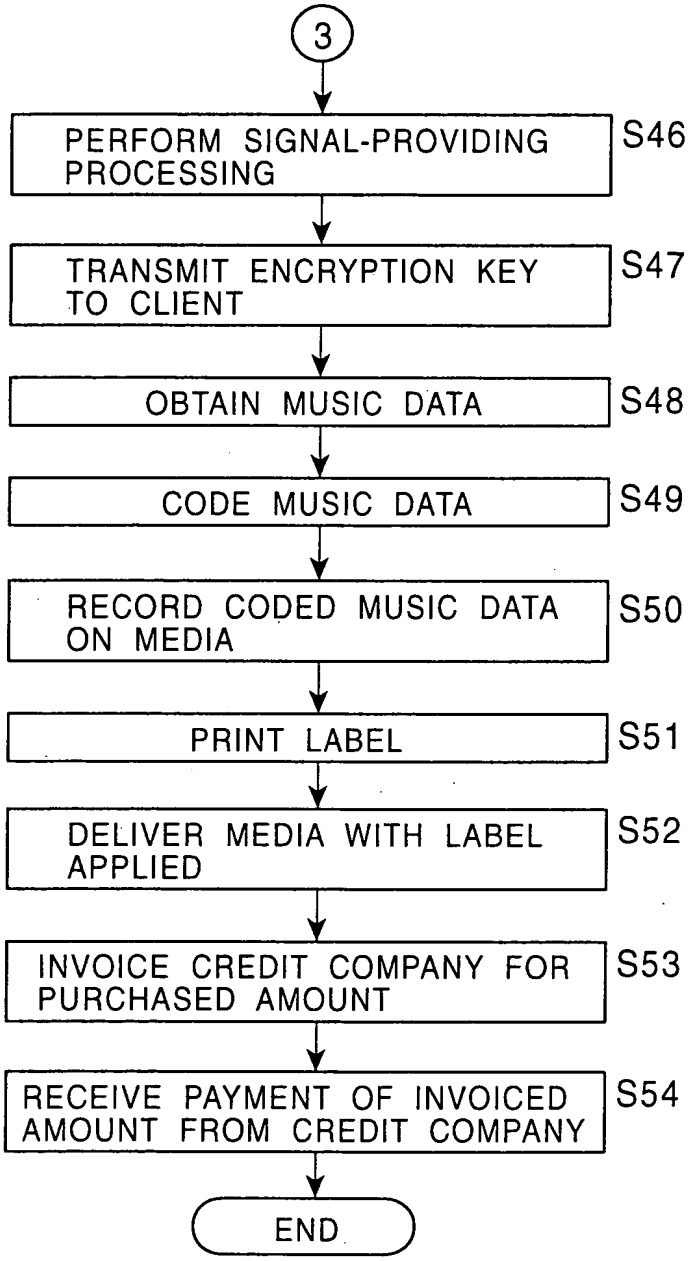

3
PERFORM SIGNAL-PROVIDING PROCESSING
S46
TRANSMIT ENCRYPTION KEY TO CLIENT
S47
OBTAIN MUSIC DATA
S48
CODE MUSIC DATA
S49
RECORD CODED MUSIC DATA ON MEDIA
S50
PRINT LABEL
S51
DELIVER MEDIA WITH LABEL APPLIED
S52
INVOICE CREDIT COMPANY FOR PURCHASED AMOUNT
S53
RECEIVE PAYMENT OF INVOICED AMOUNT FROM CREDIT COMPANY
S54
END

FIG. 16

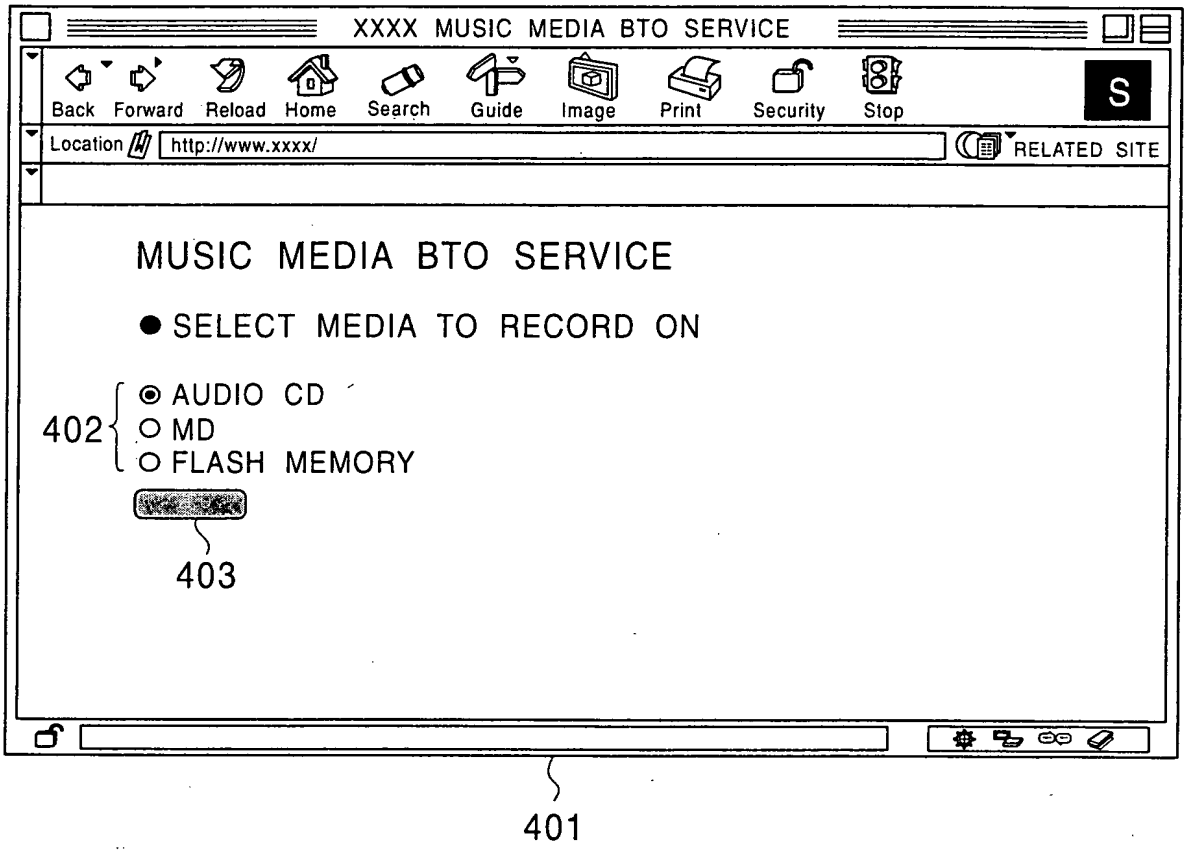

XXXX MUSIC MEDIA BTO SERVICE
Back
Forward
Reload
Home
Search
Guide
Image
Print
Security
Stop
S
Location
http://www.xxxx/
RELATED SITE
MUSIC MEDIA BTO SERVICE
SELECT MEDIA TO RECORD ON
AUDIO CD
MD
FLASH MEMORY
402
403
401

FIG. 17

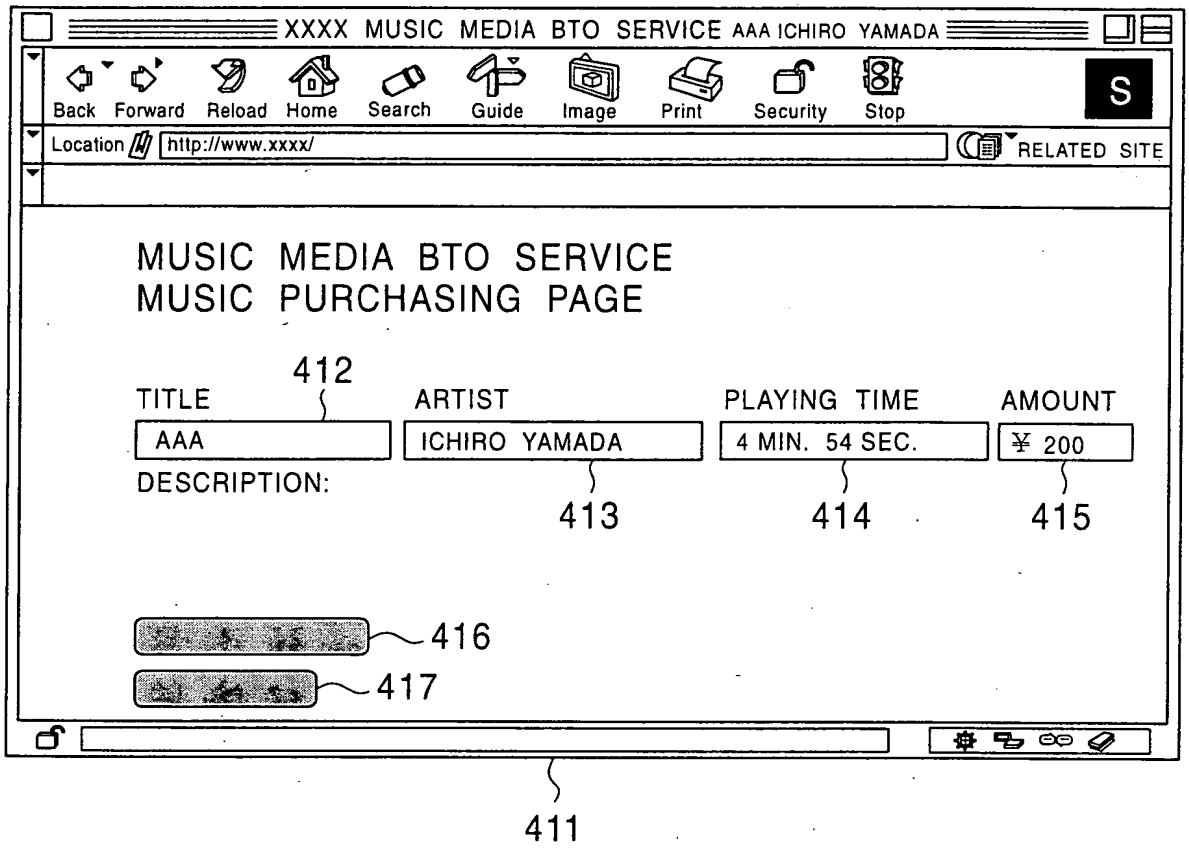

XXXX MUSIC MEDIA BTO SERVICE AAA ICHIRO YAMADA
Back
Forward
Reload
Home
Search
Guide
Image
Print
Security
Stop
S
Location
http://www.xxxx/
RELATED SITE
MUSIC MEDIA BTO SERVICE
MUSIC PURCHASING PAGE
412
TITLE
ARTIST
PLAYING TIME
AMOUNT
AAA
ICHIRO YAMADA
4 MIN. 54 SEC.
¥ 200
DESCRIPTION:
413
414
415
416
417
411

FIG. 18

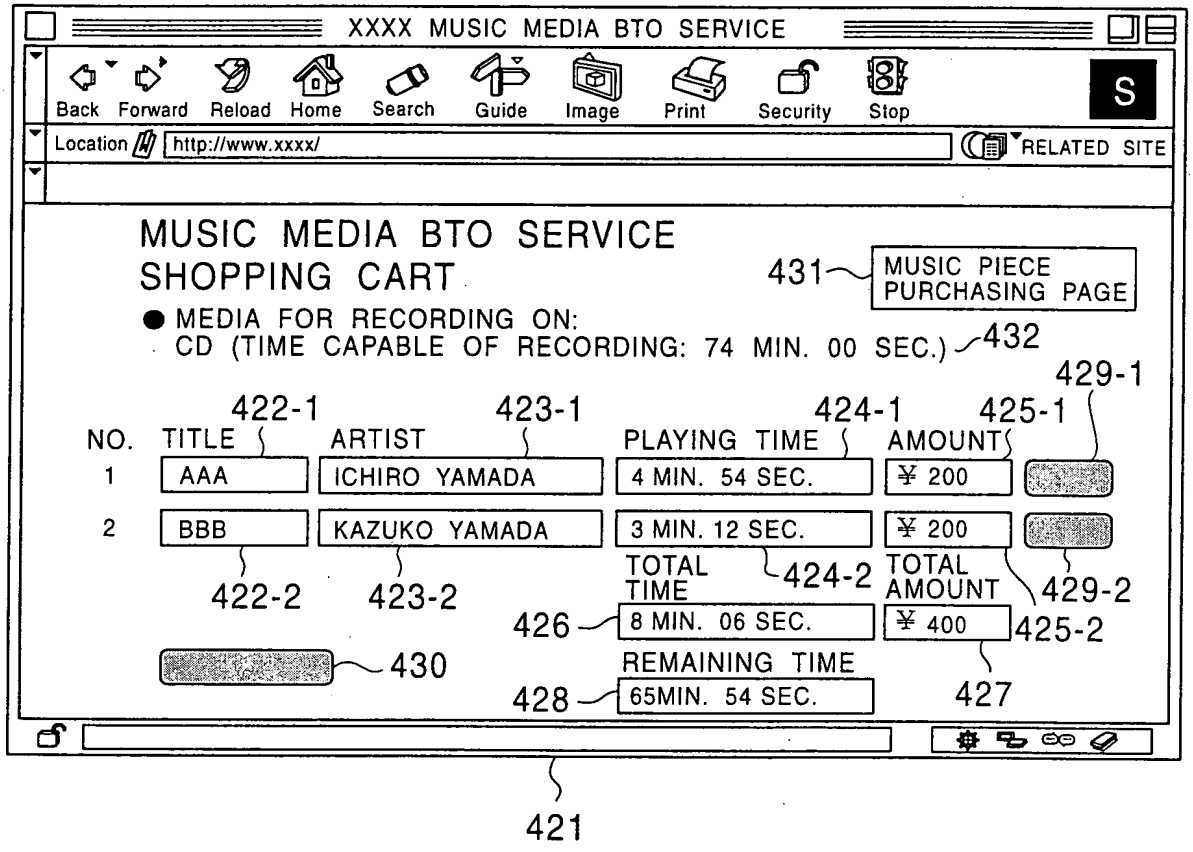

XXXX MUSIC MEDIA BTO SERVICE
Back
Forward
Reload
Home
Search
Guide
Image
Print
Security
Stop
S
Location
http://www.xxxx/
RELATED SITE
MUSIC MEDIA BTO SERVICE
SHOPPING CART
431
MUSIC PIECE PURCHASING PAGE
MEDIA FOR RECORDING ON:
CD (TIME CAPABLE OF RECORDING: 74 MIN. 00 SEC.)
432
429-1
422-1
423-1
424-1
425-1
NO.
TITLE
ARTIST
PLAYING TIME
AMOUNT
1
AAA
ICHIRO YAMADA
4 MIN. 54 SEC.
¥ 200
2
BBB
KAZUKO YAMADA
3 MIN. 12 SEC.
¥ 200
422-2
423-2
TOTAL TIME
424-2
TOTAL AMOUNT
429-2
426
8 MIN. 06 SEC.
¥ 400
425-2
430
REMAINING TIME
428
65MIN. 54 SEC.
427
421

FIG. 19

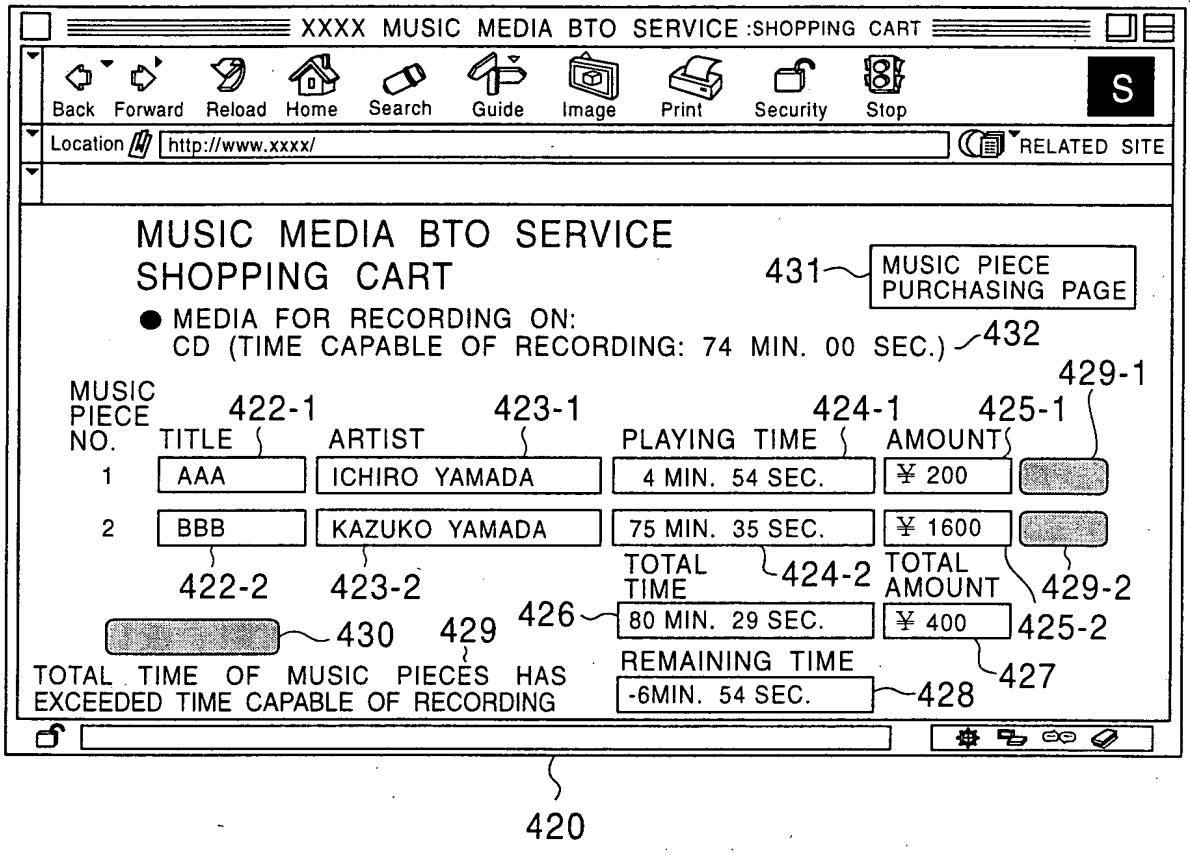

XXXX MUSIC MEDIA BTO SERVICE :SHOPPING CART
Back
Forward
Reload
Home
Search
Guide
Image
Print
Security
Stop
S
Location
http://www.xxxx/
RELATED SITE
MUSIC MEDIA BTO SERVICE
SHOPPING CART
431
MUSIC PIECE PURCHASING PAGE
● MEDIA FOR RECORDING ON:
CD (TIME CAPABLE OF RECORDING: 74 MIN. 00 SEC.)
432
429-1
MUSIC PIECE NO.
422-1
TITLE
423-1
ARTIST
424-1
PLAYING TIME
425-1
AMOUNT
1
AAA
ICHIRO YAMADA
4 MIN. 54 SEC.
¥ 200
2
BBB
KAZUKO YAMADA
75 MIN. 35 SEC.
¥ 1600
422-2
423-2
TOTAL TIME
424-2
TOTAL AMOUNT
429-2
426
80 MIN. 29 SEC.
¥ 400
425-2
430
429
427
TOTAL TIME OF MUSIC PIECES HAS EXCEEDED TIME CAPABLE OF RECORDING
REMAINING TIME
-6MIN. 54 SEC.
428
420

FIG. 20

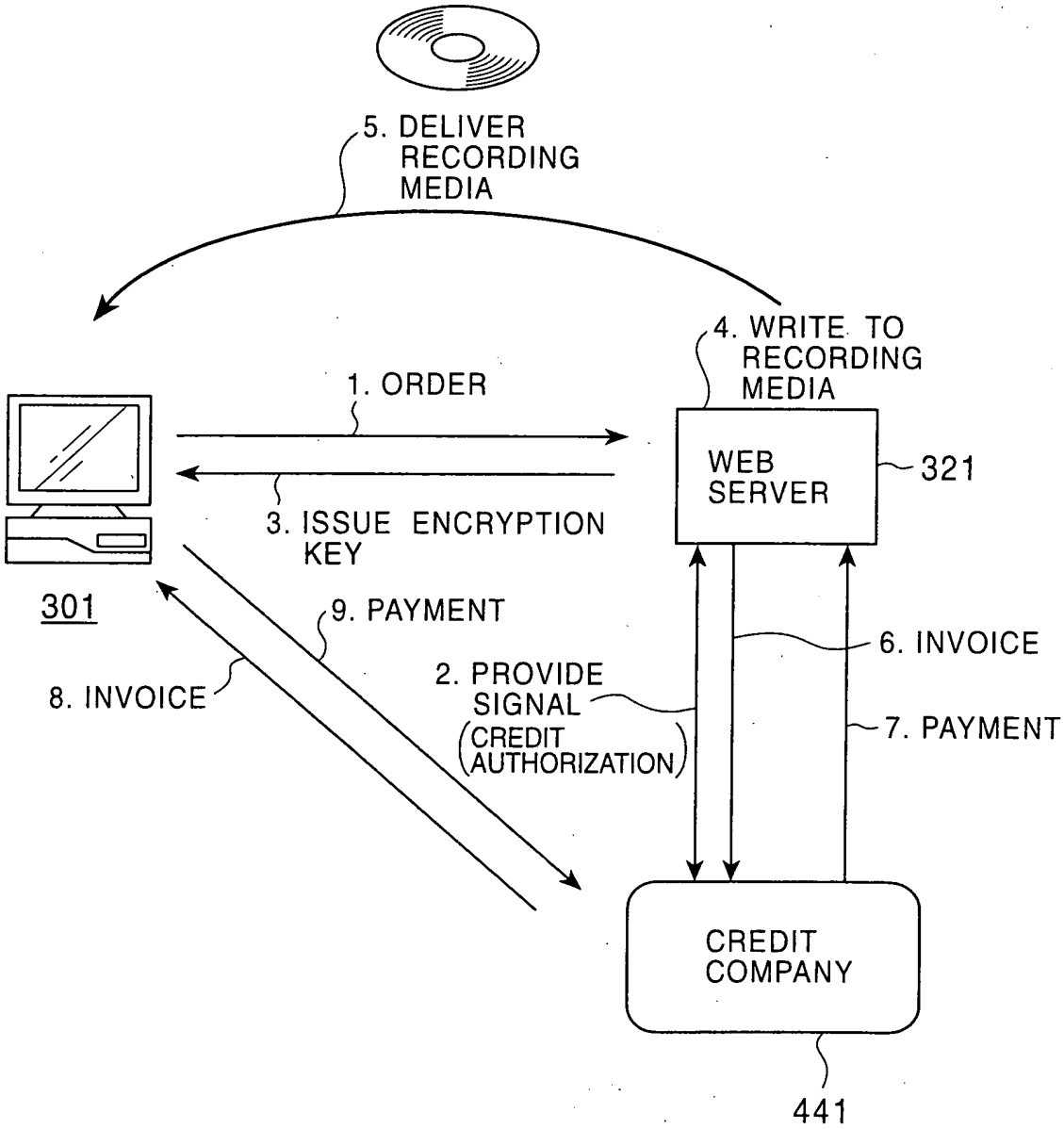

5. DELIVER RECORDING MEDIA
4. WRITE TO RECORDING MEDIA
1. ORDER
WEB SERVER
321
3. ISSUE ENCRYPTION KEY
301
9. PAYMENT
6. INVOICE
2. PROVIDE SIGNAL (CREDIT AUTHORIZATION)
7. PAYMENT
8. INVOICE
CREDIT COMPANY
441

FIG. 21

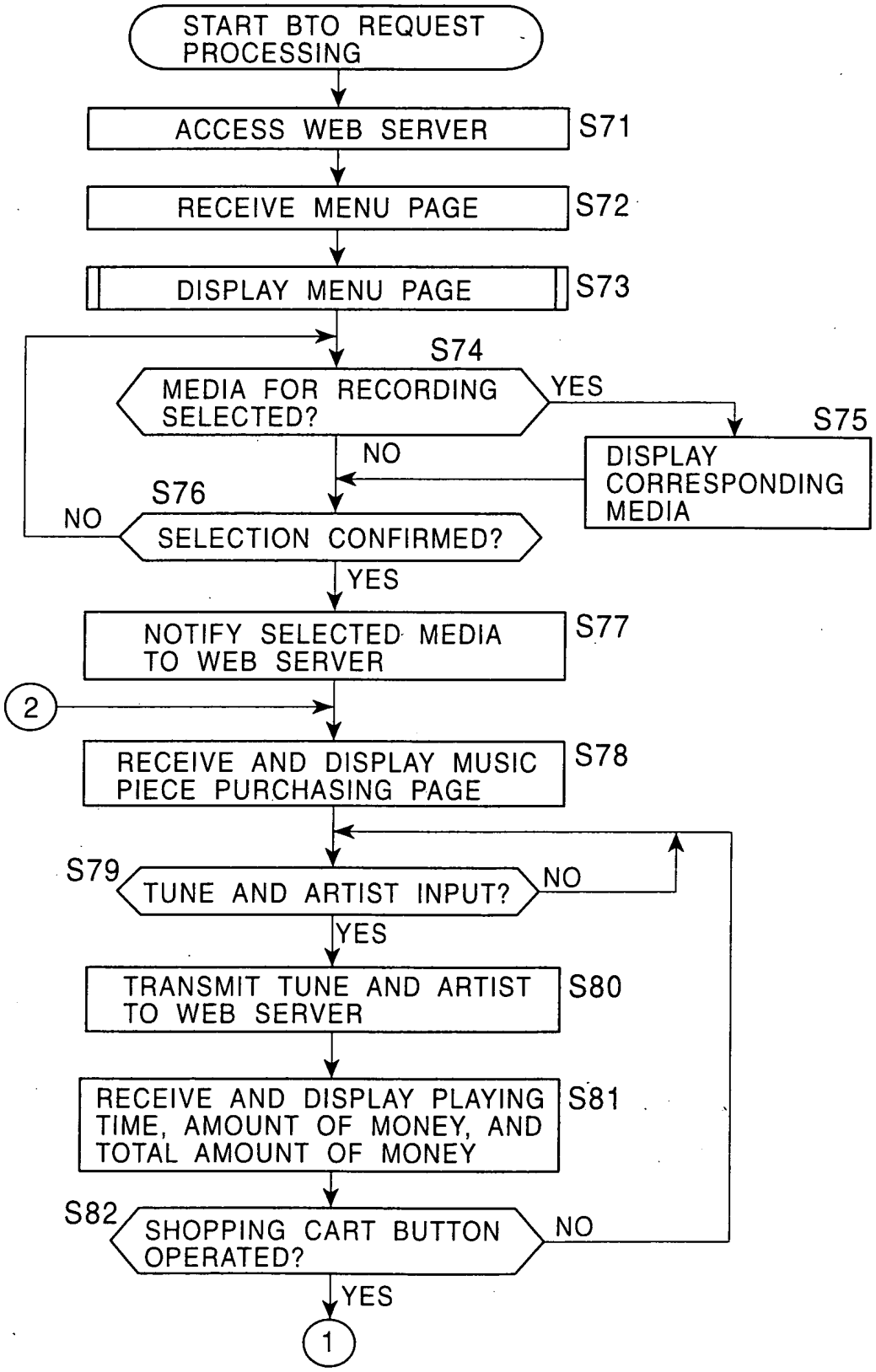

START BTO REQUEST PROCESSING
ACCESS WEB SERVER
S71
RECEIVE MENU PAGE
S72
DISPLAY MENU PAGE
S73
S74
MEDIA FOR RECORDING SELECTED?
YES
S75
DISPLAY CORRESPONDING MEDIA
NO
S76
NO
SELECTION CONFIRMED?
YES
NOTIFY SELECTED MEDIA TO WEB SERVER
S77
2
RECEIVE AND DISPLAY MUSIC PIECE PURCHASING PAGE
S78
S79
TUNE AND ARTIST INPUT?
NO
YES
TRANSMIT TUNE AND ARTIST TO WEB SERVER
S80
RECEIVE AND DISPLAY PLAYING TIME, AMOUNT OF MONEY, AND TOTAL AMOUNT OF MONEY
S81
S82
SHOPPING CART BUTTON OPERATED?
NO
YES
1

FIG. 22

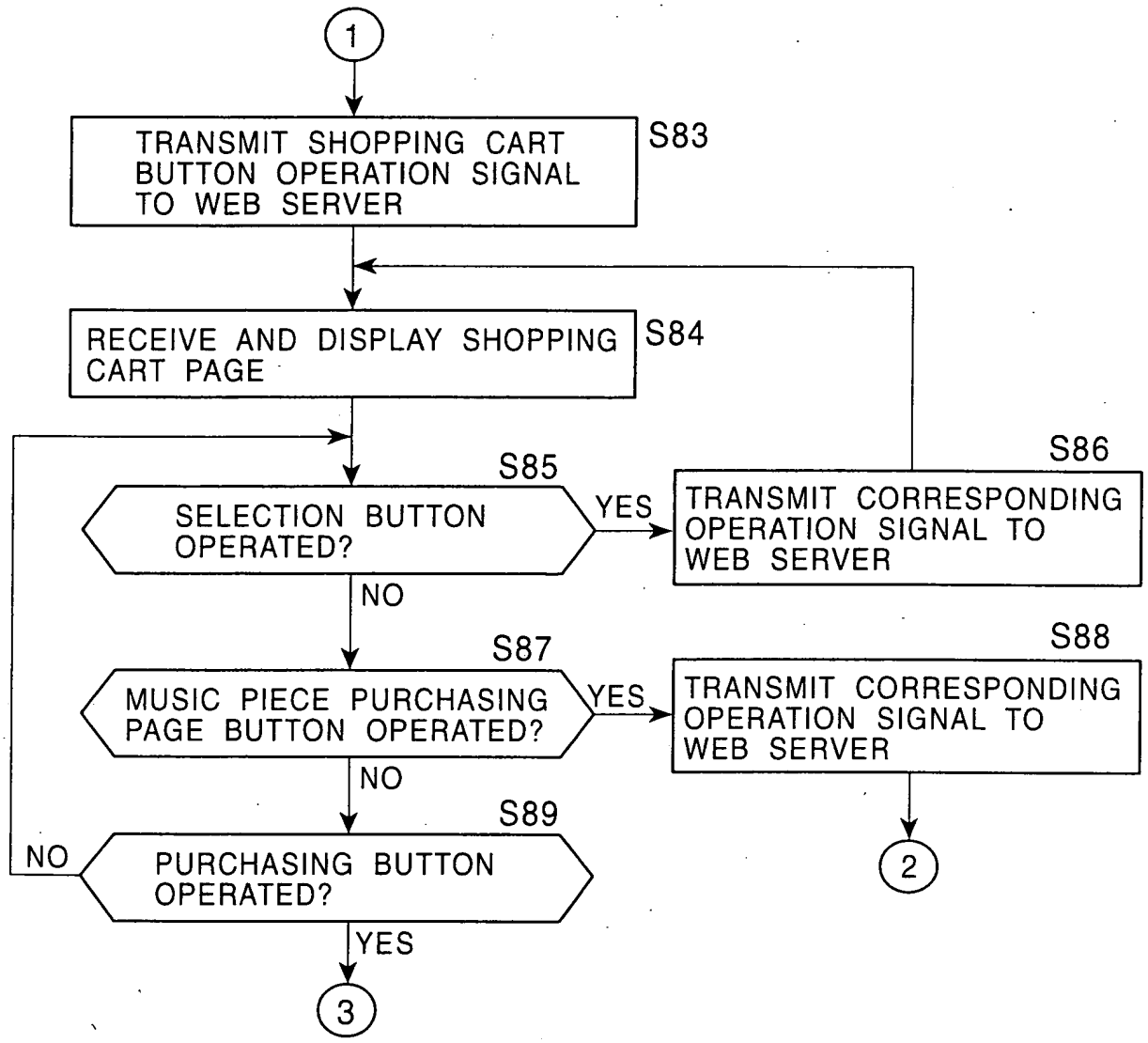

1
TRANSMIT SHOPPING CART BUTTON OPERATION SIGNAL TO WEB SERVER
S83
RECEIVE AND DISPLAY SHOPPING CART PAGE
S84
S85
SELECTION BUTTON OPERATED?
YES
S86
TRANSMIT CORRESPONDING OPERATION SIGNAL TO WEB SERVER
NO
S87
MUSIC PIECE PURCHASING PAGE BUTTON OPERATED?
YES
S88
TRANSMIT CORRESPONDING OPERATION SIGNAL TO WEB SERVER
NO
S89
NO
PURCHASING BUTTON OPERATED?
YES
2
3

FIG. 23

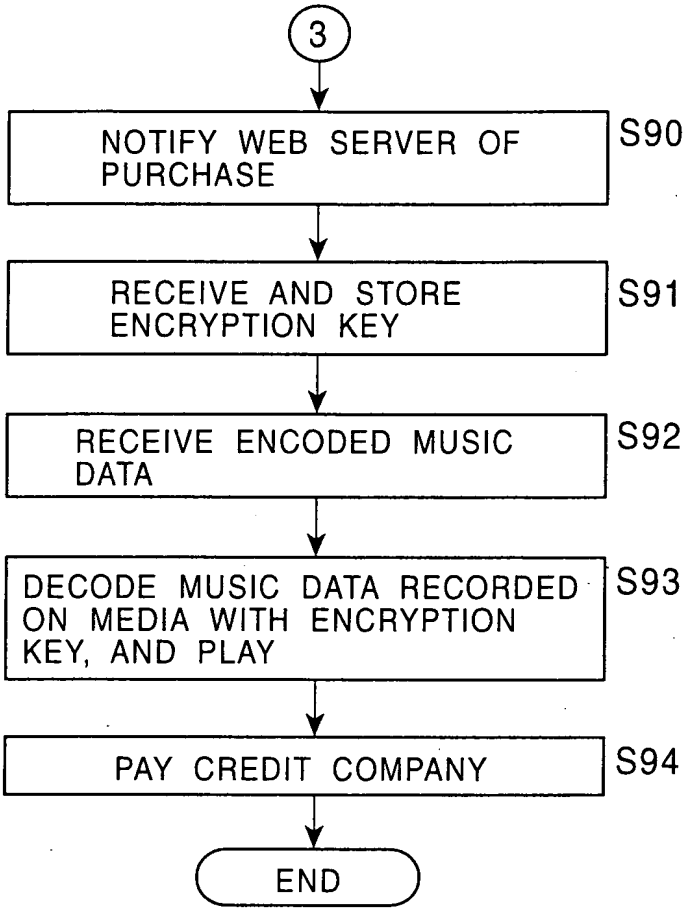

3
NOTIFY WEB SERVER OF PURCHASE
S90
RECEIVE AND STORE ENCRYPTION KEY
S91
RECEIVE ENCODED MUSIC DATA
S92
DECODE MUSIC DATA RECORDED ON MEDIA WITH ENCRYPTION KEY, AND PLAY
S93
PAY CREDIT COMPANY
S94
END

FIG. 24

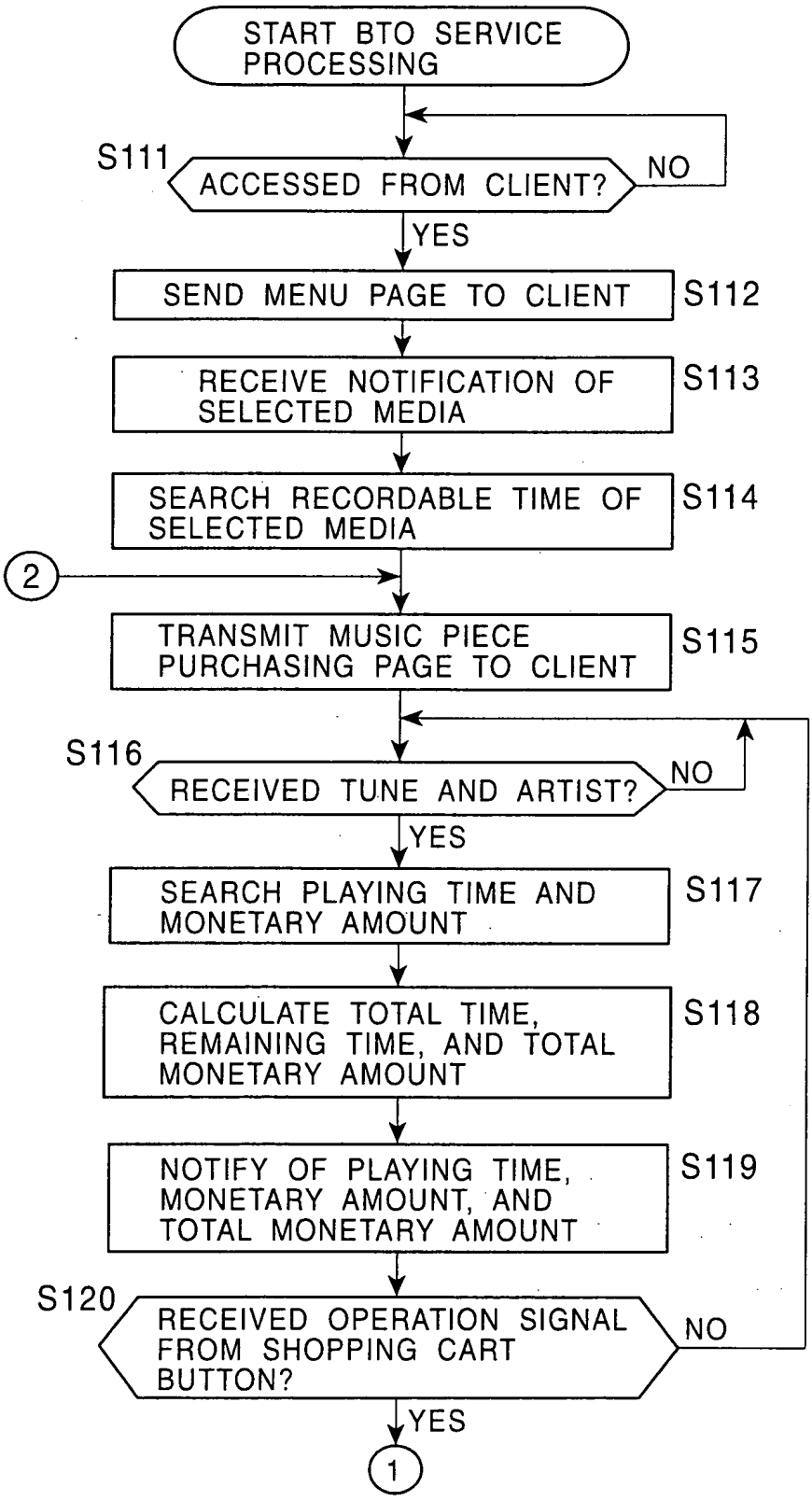

START BTO SERVICE PROCESSING
S111
ACCESSED FROM CLIENT?
NO
YES
SEND MENU PAGE TO CLIENT
S112
RECEIVE NOTIFICATION OF SELECTED MEDIA
S113
SEARCH RECORDABLE TIME OF SELECTED MEDIA
S114
2
TRANSMIT MUSIC PIECE PURCHASING PAGE TO CLIENT
S115
S116
RECEIVED TUNE AND ARTIST?
NO
YES
SEARCH PLAYING TIME AND MONETARY AMOUNT
S117
CALCULATE TOTAL TIME, REMAINING TIME, AND TOTAL MONETARY AMOUNT
S118
NOTIFY OF PLAYING TIME, MONETARY AMOUNT, AND TOTAL MONETARY AMOUNT
S119
S120
RECEIVED OPERATION SIGNAL FROM SHOPPING CART BUTTON?
NO
YES
1

FIG. 25

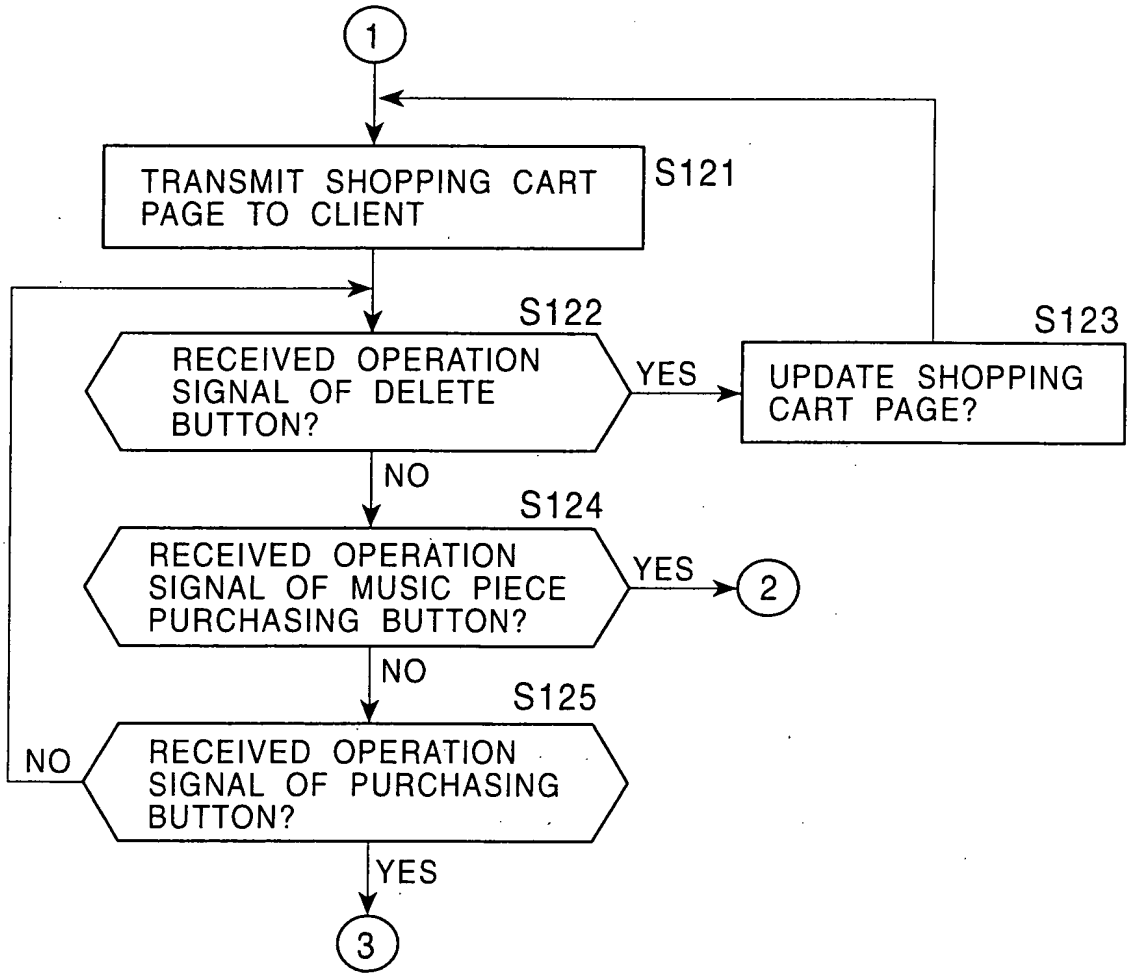

1
TRANSMIT SHOPPING CART PAGE TO CLIENT
S121
S122
RECEIVED OPERATION SIGNAL OF DELETE BUTTON?
YES
S123
UPDATE SHOPPING CART PAGE?
NO
S124
RECEIVED OPERATION SIGNAL OF MUSIC PIECE PURCHASING BUTTON?
YES
2
NO
S125
RECEIVED OPERATION SIGNAL OF PURCHASING BUTTON?
NO
YES
3

FIG. 26

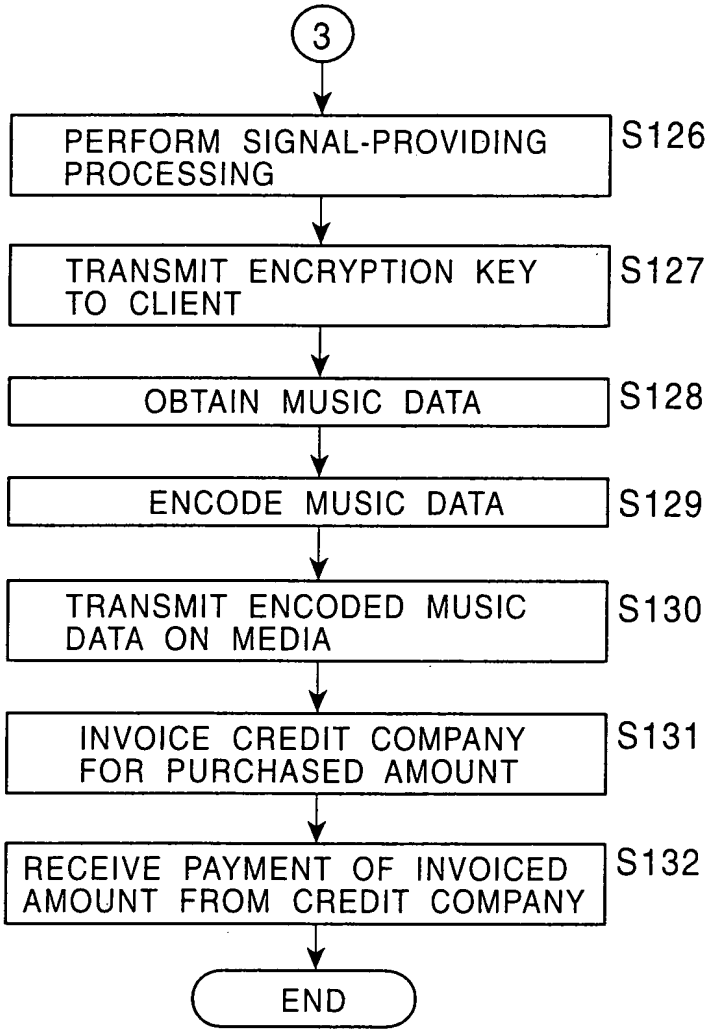

3
PERFORM SIGNAL-PROVIDING PROCESSING
S126
TRANSMIT ENCRYPTION KEY TO CLIENT
S127
OBTAIN MUSIC DATA
S128
ENCODE MUSIC DATA
S129
TRANSMIT ENCODED MUSIC DATA ON MEDIA
S130
INVOICE CREDIT COMPANY FOR PURCHASED AMOUNT
S131
RECEIVE PAYMENT OF INVOICED AMOUNT FROM CREDIT COMPANY
S132
END

FIG. 27

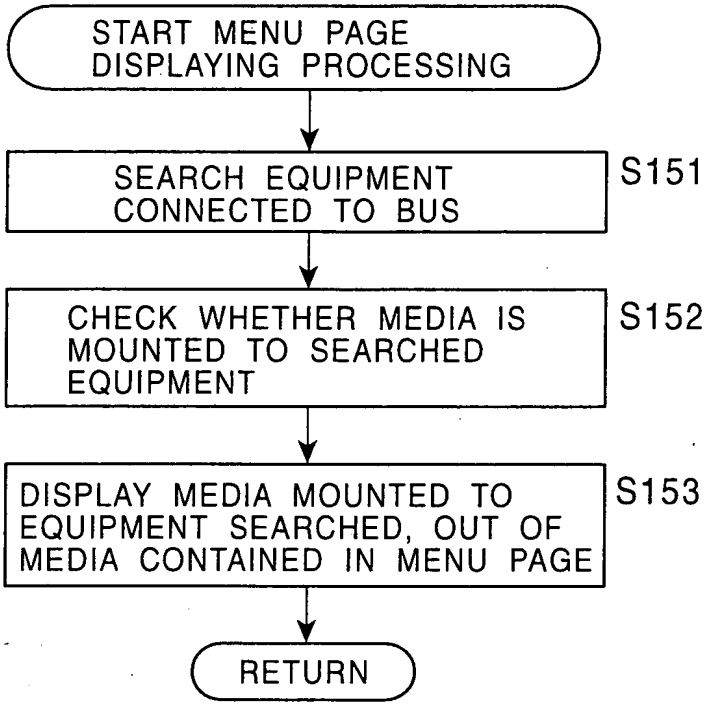

START MENU PAGE DISPLAYING PROCESSING
SEARCH EQUIPMENT CONNECTED TO BUS
S151
CHECK WHETHER MEDIA IS MOUNTED TO SEARCHED EQUIPMENT
S152
DISPLAY MEDIA MOUNTED TO EQUIPMENT SEARCHED, OUT OF MEDIA CONTAINED IN MENU PAGE
S153
RETURN

FIG. 28

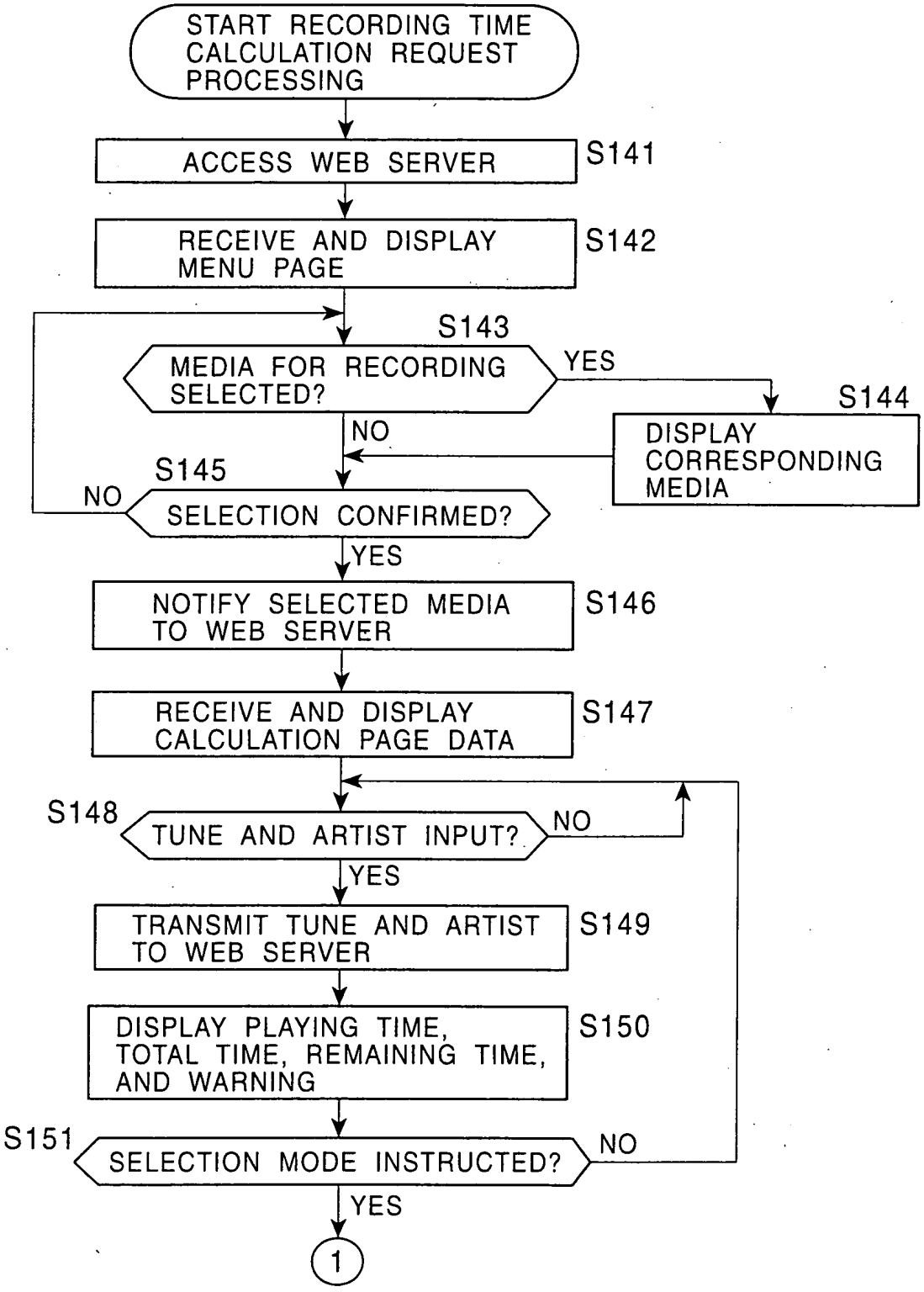

START RECORDING TIME CALCULATION REQUEST PROCESSING
ACCESS WEB SERVER
S141
RECEIVE AND DISPLAY MENU PAGE
S142
S143
MEDIA FOR RECORDING SELECTED?
YES
S144
DISPLAY CORRESPONDING MEDIA
NO
S145
NO
SELECTION CONFIRMED?
YES
NOTIFY SELECTED MEDIA TO WEB SERVER
S146
RECEIVE AND DISPLAY CALCULATION PAGE DATA
S147
S148
TUNE AND ARTIST INPUT?
NO
YES
TRANSMIT TUNE AND ARTIST TO WEB SERVER
S149
DISPLAY PLAYING TIME, TOTAL TIME, REMAINING TIME, AND WARNING
S150
S151
SELECTION MODE INSTRUCTED?
NO
YES
1

FIG. 29

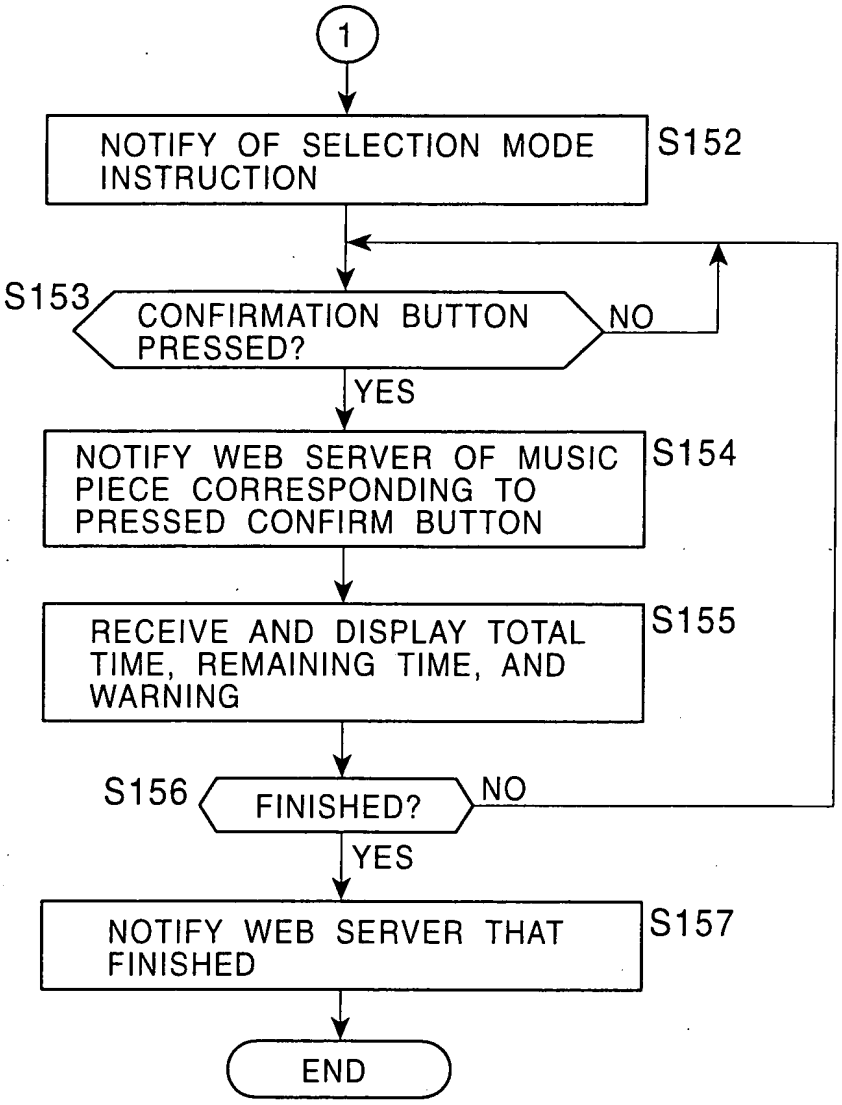

1
NOTIFY OF SELECTION MODE INSTRUCTION
S152
S153
CONFIRMATION BUTTON PRESSED?
NO
YES
NOTIFY WEB SERVER OF MUSIC PIECE CORRESPONDING TO PRESSED CONFIRM BUTTON
S154
RECEIVE AND DISPLAY TOTAL TIME, REMAINING TIME, AND WARNING
S155
S156
FINISHED?
NO
YES
NOTIFY WEB SERVER THAT FINISHED
S157
END

FIG. 30

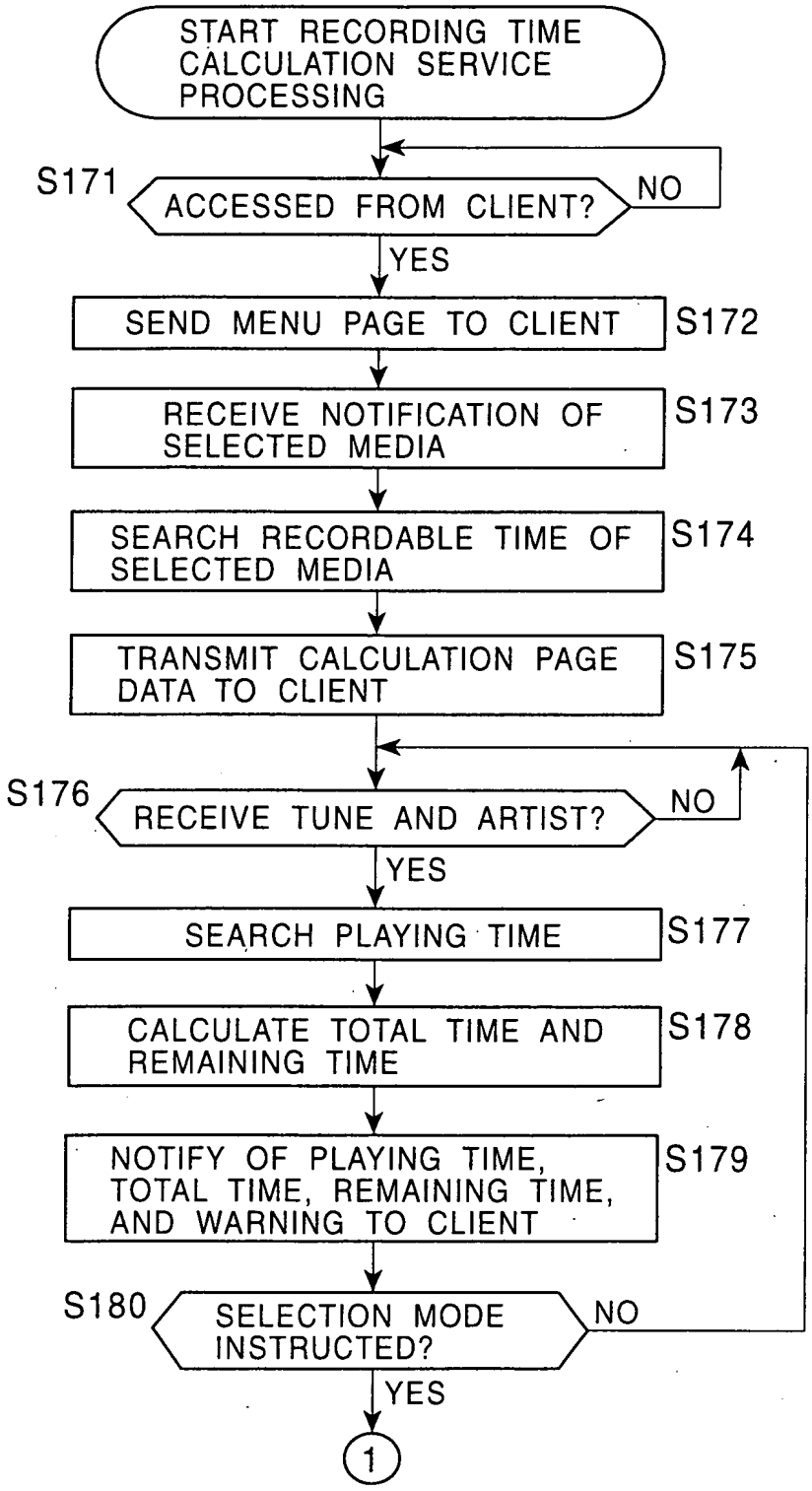

START RECORDING TIME CALCULATION SERVICE PROCESSING
S171
ACCESSED FROM CLIENT?
NO
YES
SEND MENU PAGE TO CLIENT
S172
RECEIVE NOTIFICATION OF SELECTED MEDIA
S173
SEARCH RECORDABLE TIME OF SELECTED MEDIA
S174
TRANSMIT CALCULATION PAGE DATA TO CLIENT
S175
S176
RECEIVE TUNE AND ARTIST?
NO
YES
SEARCH PLAYING TIME
S177
CALCULATE TOTAL TIME AND REMAINING TIME
S178
NOTIFY OF PLAYING TIME, TOTAL TIME, REMAINING TIME, AND WARNING TO CLIENT
S179
S180
SELECTION MODE INSTRUCTED?
NO
YES
1

FIG. 31

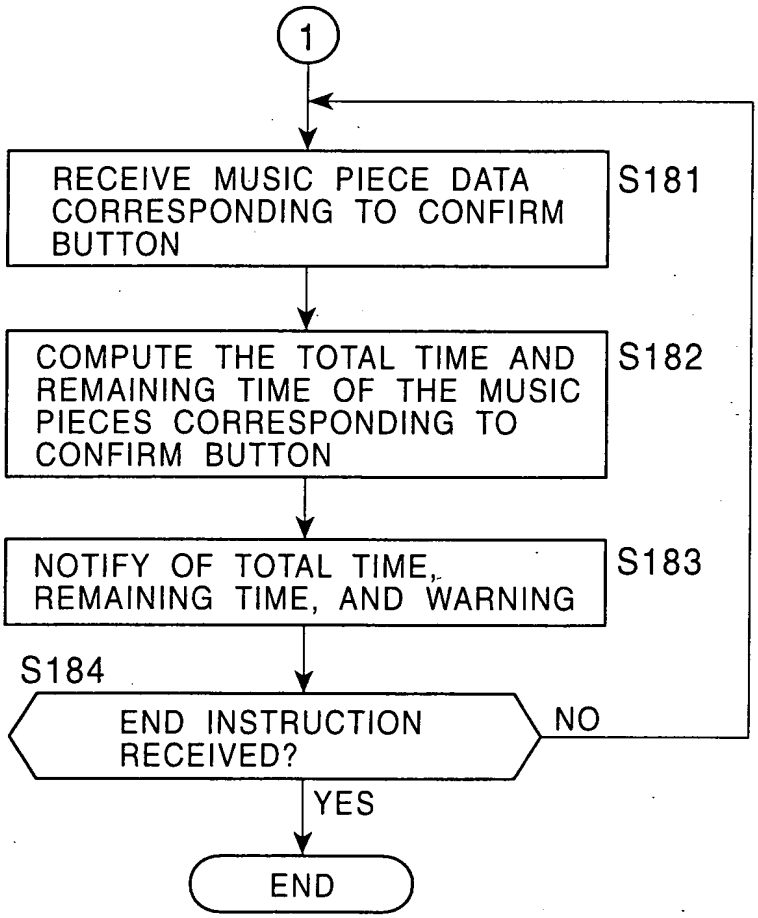

1
RECEIVE MUSIC PIECE DATA CORRESPONDING TO CONFIRM BUTTON
S181
COMPUTE THE TOTAL TIME AND REMAINING TIME OF THE MUSIC PIECES CORRESPONDING TO CONFIRM BUTTON
S182
NOTIFY OF TOTAL TIME, REMAINING TIME, AND WARNING
S183
S184
END INSTRUCTION RECEIVED?
NO
YES
END

FIG. 32

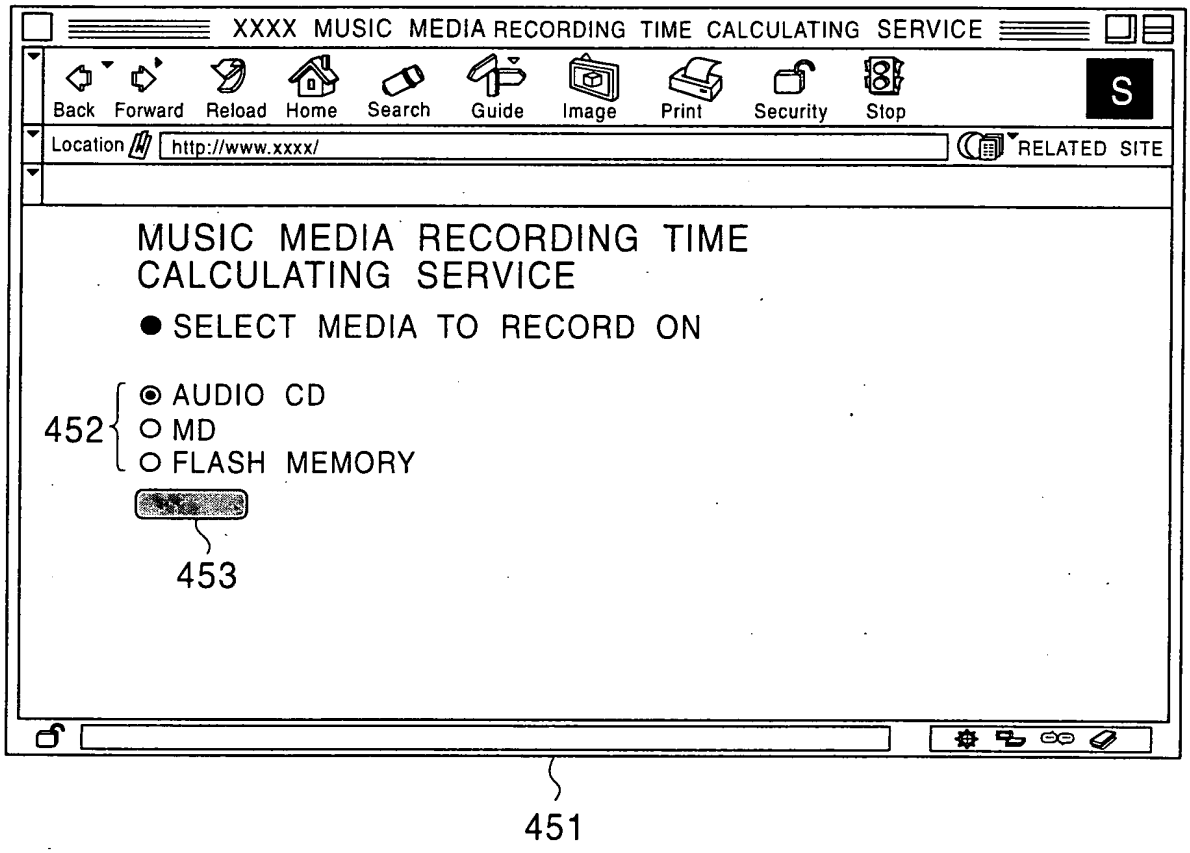

XXXX MUSIC MEDIA RECORDING TIME CALCULATING SERVICE
Back
Forward
Reload
Home
Search
Guide
Image
Print
Security
Stop
S
Location
http://www.xxxx/
RELATED SITE
MUSIC MEDIA RECORDING TIME CALCULATING SERVICE
● SELECT MEDIA TO RECORD ON
452
◉ AUDIO CD
○ MD
○ FLASH MEMORY
453
451

FIG. 33

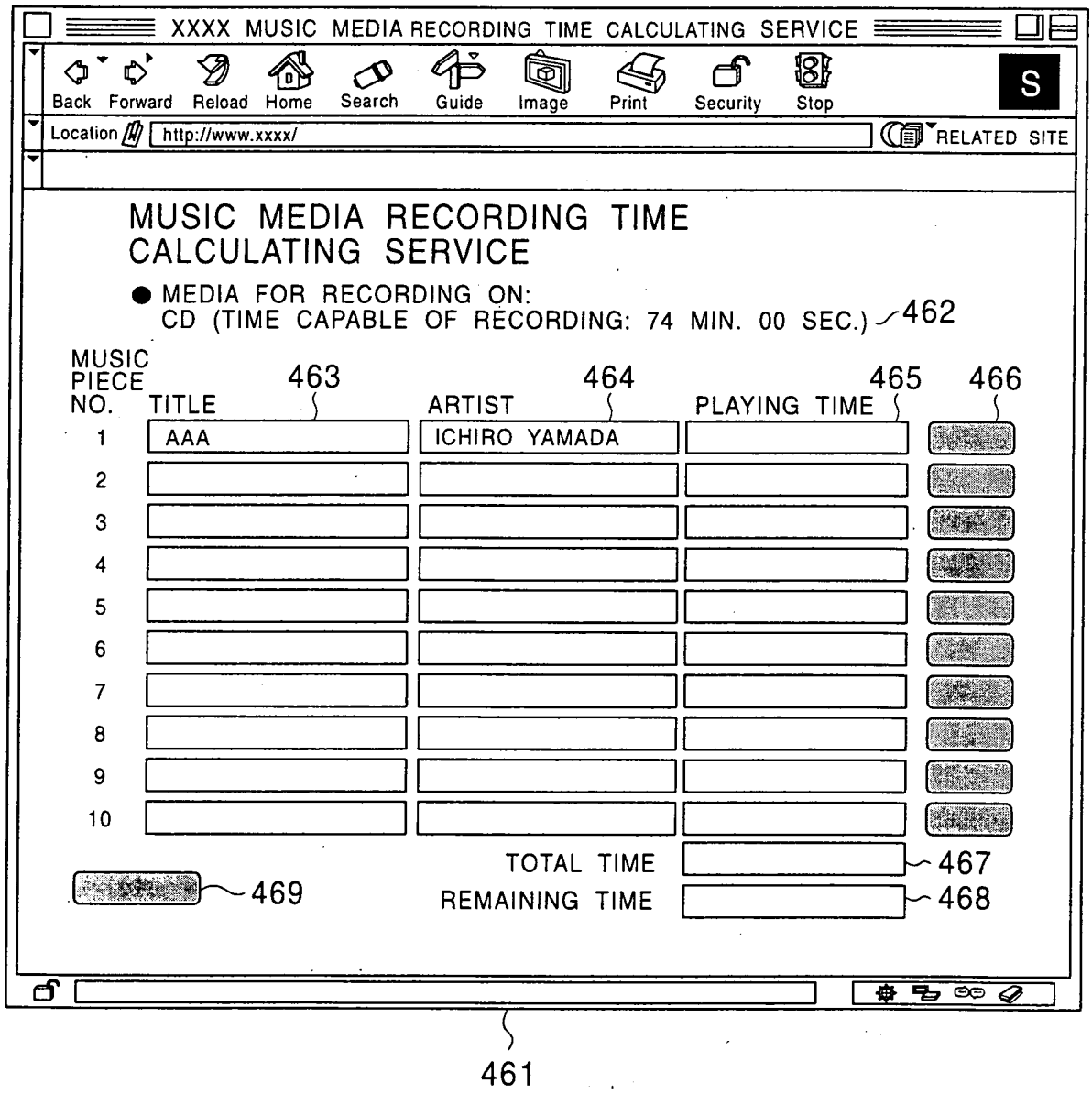

XXXX MUSIC MEDIA RECORDING TIME CALCULATING SERVICE
Back
Forward
Reload
Home
Search
Guide
Image
Print
Security
Stop
S
Location
http://www.xxxx/
RELATED SITE
MUSIC MEDIA RECORDING TIME CALCULATING SERVICE
● MEDIA FOR RECORDING ON:
CD (TIME CAPABLE OF RECORDING: 74 MIN. 00 SEC.)
462
MUSIC PIECE NO.
TITLE
463
ARTIST
464
PLAYING TIME
465
466
1
AAA
ICHIRO YAMADA
2
3
4
5
6
7
8
9
10
TOTAL TIME
467
REMAINING TIME
468
469
461

FIG. 34

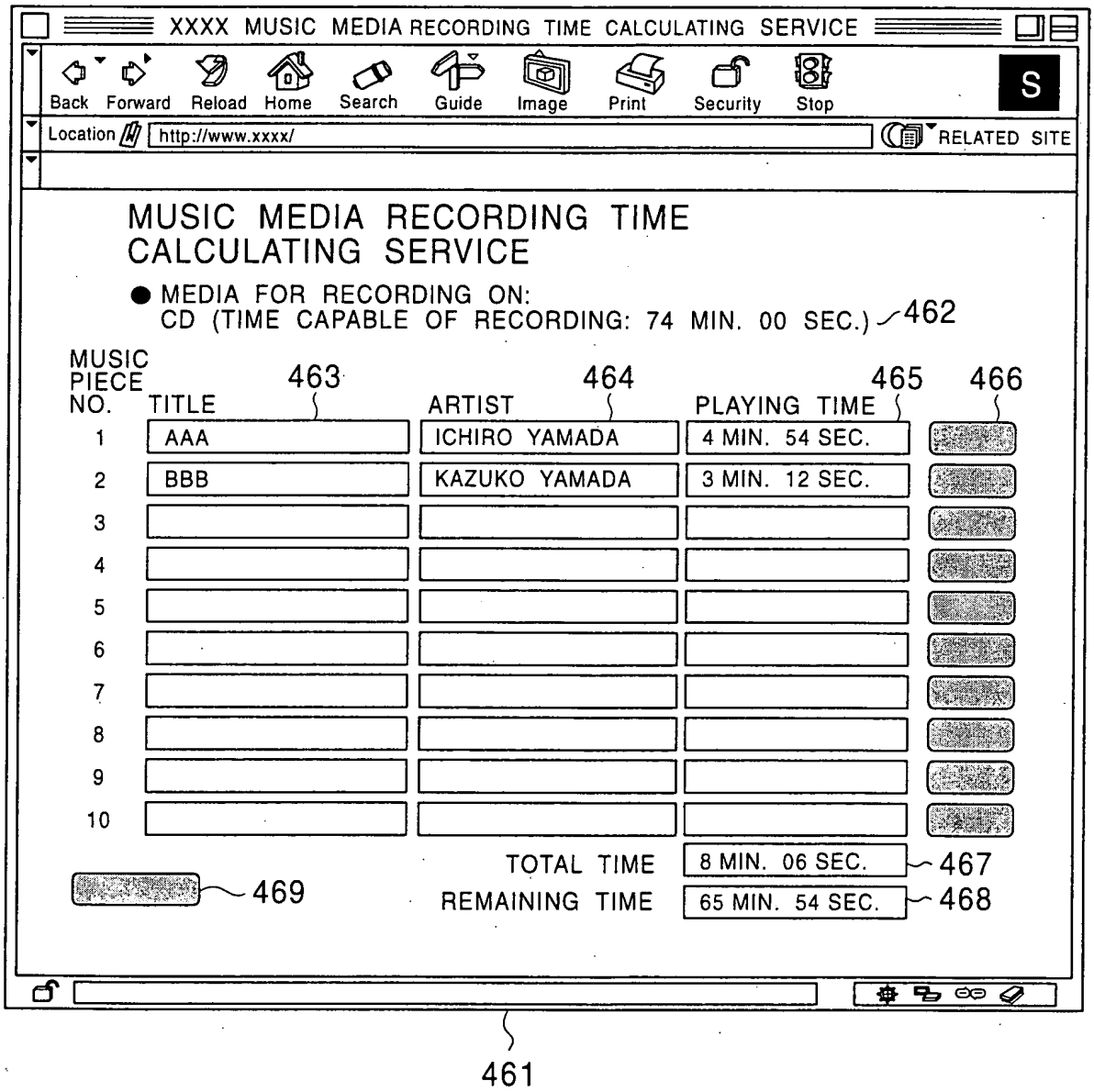

XXXX MUSIC MEDIA RECORDING TIME CALCULATING SERVICE
Back
Forward
Reload
Home
Search
Guide
Image
Print
Security
Stop
S
Location
http://www.xxxx/
RELATED SITE
MUSIC MEDIA RECORDING TIME CALCULATING SERVICE
● MEDIA FOR RECORDING ON:
CD (TIME CAPABLE OF RECORDING: 74 MIN. 00 SEC.)
462
MUSIC PIECE NO.
TITLE
463
ARTIST
464
PLAYING TIME
465
466
1 AAA ICHIRO YAMADA 4 MIN. 54 SEC.
2 BBB KAZUKO YAMADA 3 MIN. 12 SEC.
3
4
5
6
7
8
9
10
TOTAL TIME
8 MIN. 06 SEC.
467
REMAINING TIME
65 MIN. 54 SEC.
468
469
461

FIG. 35

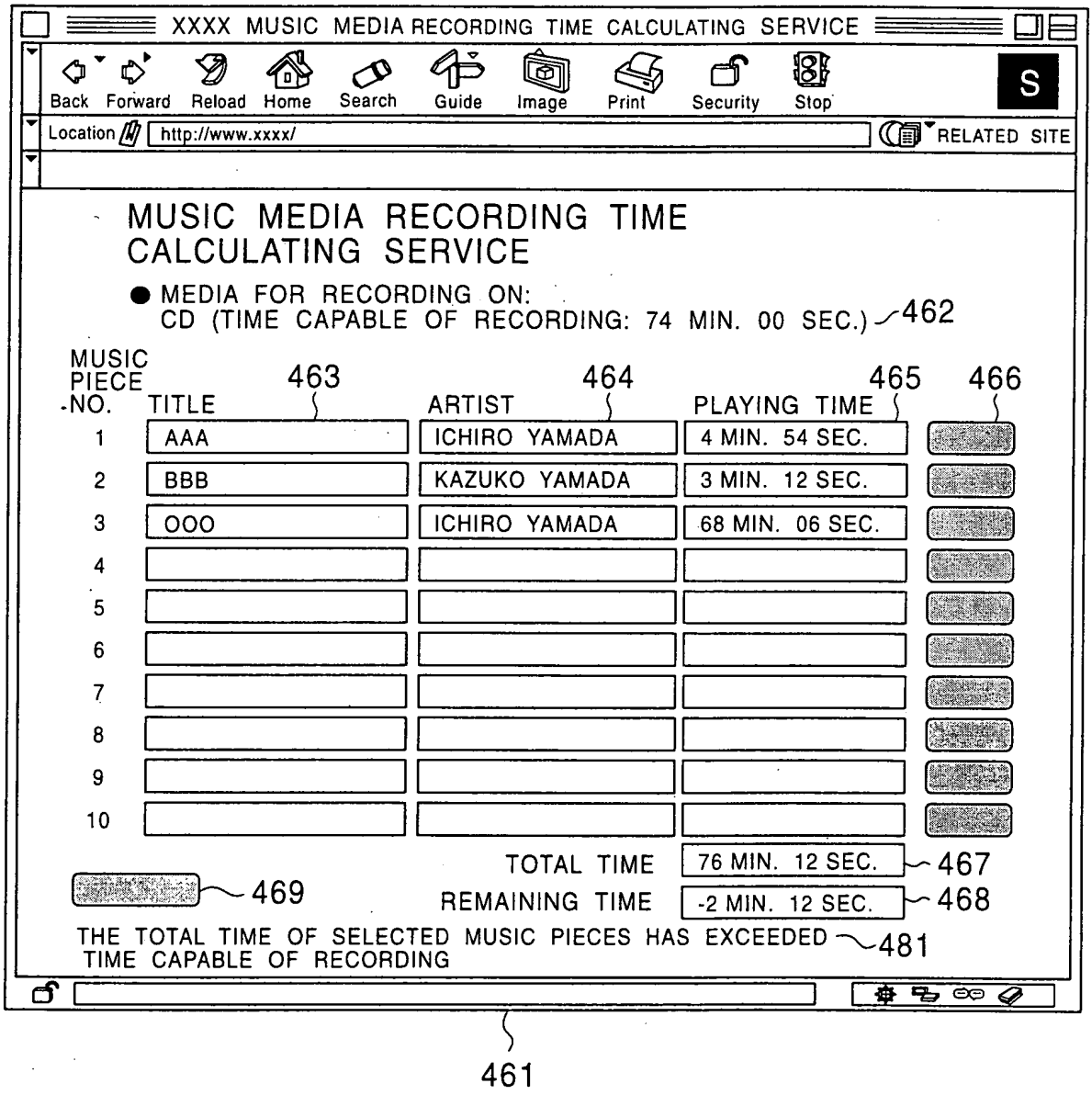

XXXX MUSIC MEDIA RECORDING TIME CALCULATING SERVICE
Back
Forward
Reload
Home
Search
Guide
Image
Print
Security
Stop
S
Location
http://www.xxxx/
RELATED SITE
MUSIC MEDIA RECORDING TIME CALCULATING SERVICE
● MEDIA FOR RECORDING ON:
CD (TIME CAPABLE OF RECORDING: 74 MIN. 00 SEC.)
462
MUSIC PIECE NO.
TITLE
463
ARTIST
464
PLAYING TIME
465
466
1 AAA ICHIRO YAMADA 4 MIN. 54 SEC.
2 BBB KAZUKO YAMADA 3 MIN. 12 SEC.
3 OOO ICHIRO YAMADA 68 MIN. 06 SEC.
4
5
6
7
8
9
10
TOTAL TIME
76 MIN. 12 SEC.
467
REMAINING TIME
-2 MIN. 12 SEC.
468
469
THE TOTAL TIME OF SELECTED MUSIC PIECES HAS EXCEEDED TIME CAPABLE OF RECORDING
481
461

FIG. 36

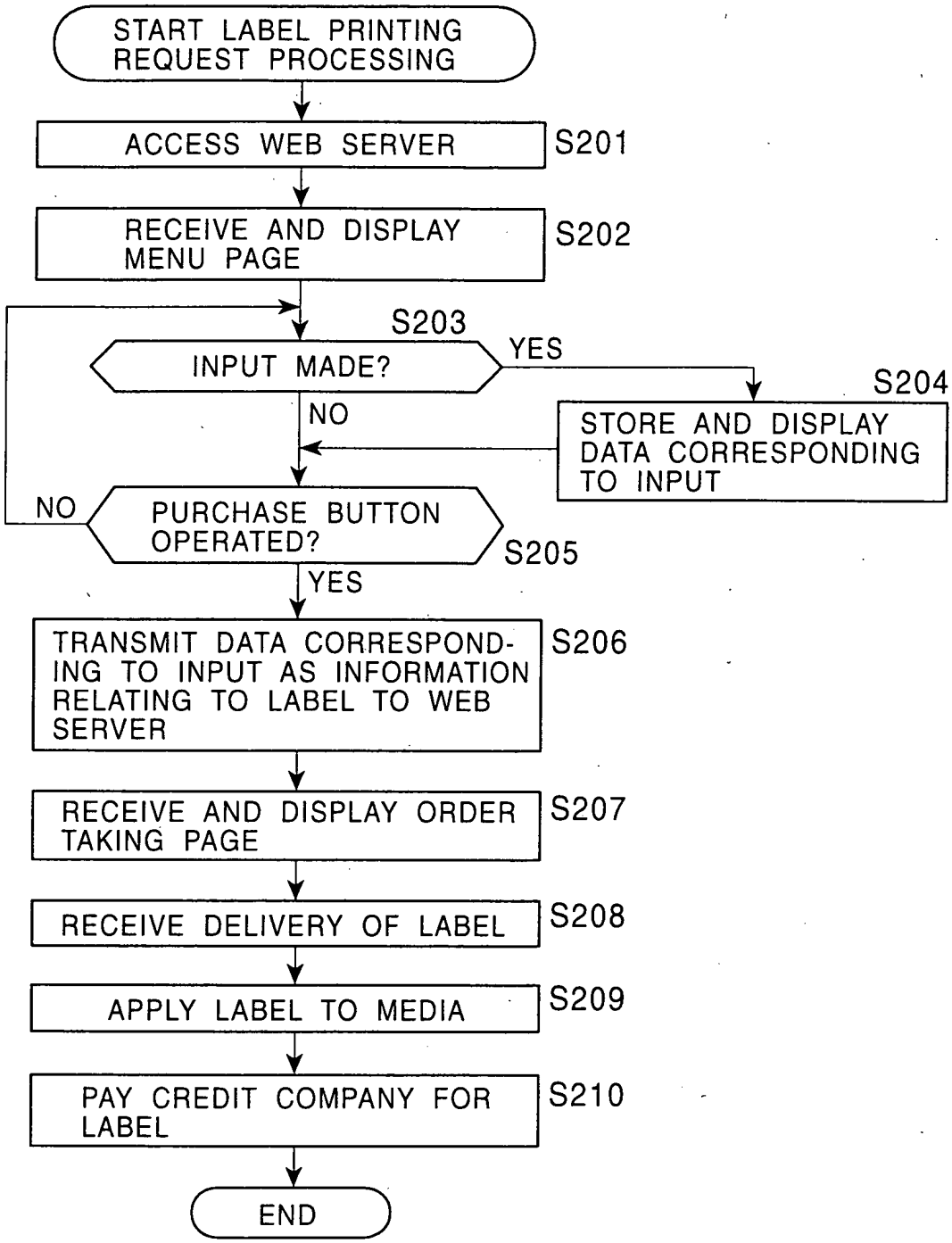

START LABEL PRINTING REQUEST PROCESSING
ACCESS WEB SERVER
S201
RECEIVE AND DISPLAY MENU PAGE
S202
S203
INPUT MADE?
YES
S204
STORE AND DISPLAY DATA CORRESPONDING TO INPUT
NO
NO
PURCHASE BUTTON OPERATED?
S205
YES
TRANSMIT DATA CORRESPONDING TO INPUT AS INFORMATION RELATING TO LABEL TO WEB SERVER
S206
RECEIVE AND DISPLAY ORDER TAKING PAGE
S207
RECEIVE DELIVERY OF LABEL
S208
APPLY LABEL TO MEDIA
S209
PAY CREDIT COMPANY FOR LABEL
S210
END

FIG. 37

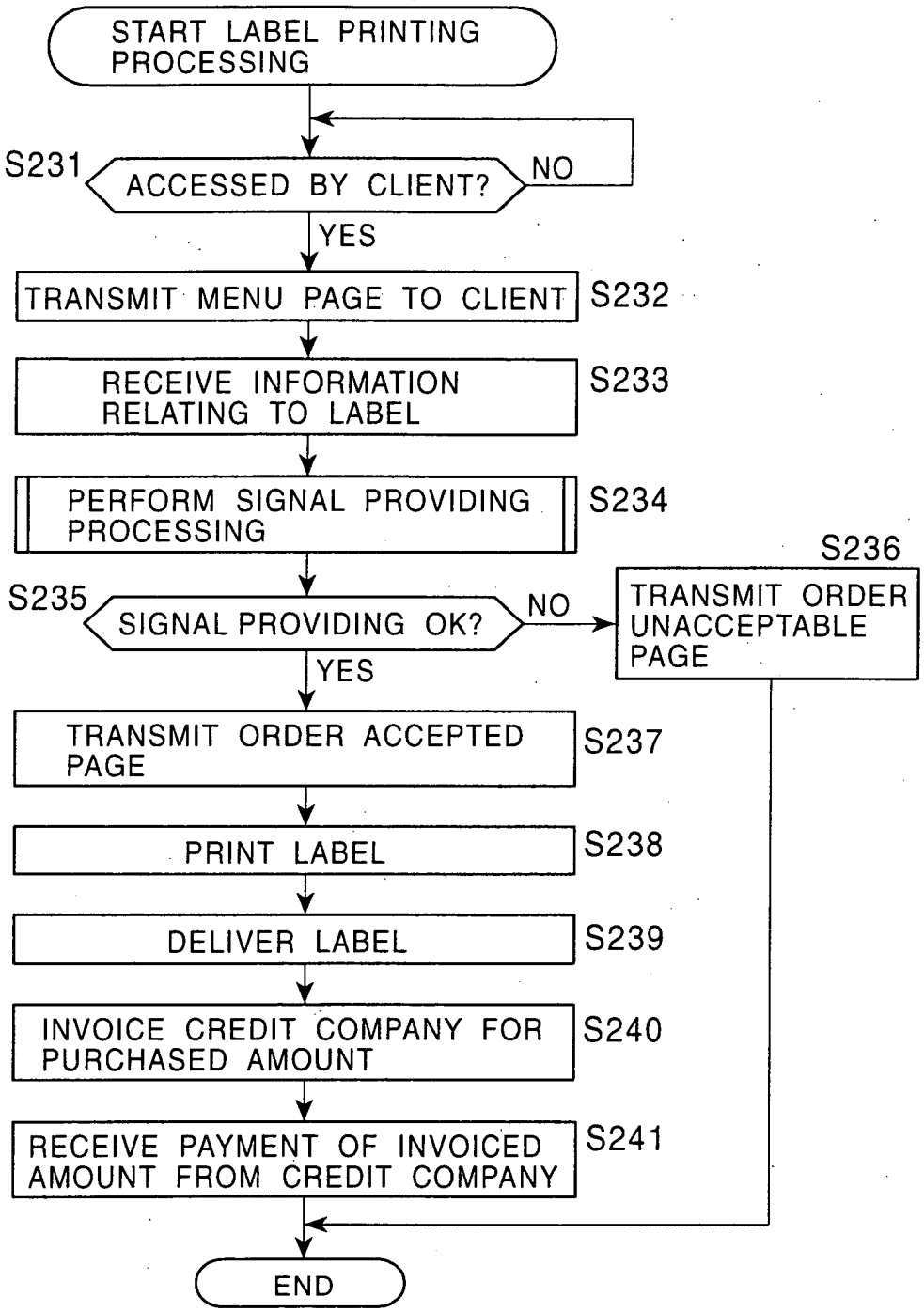
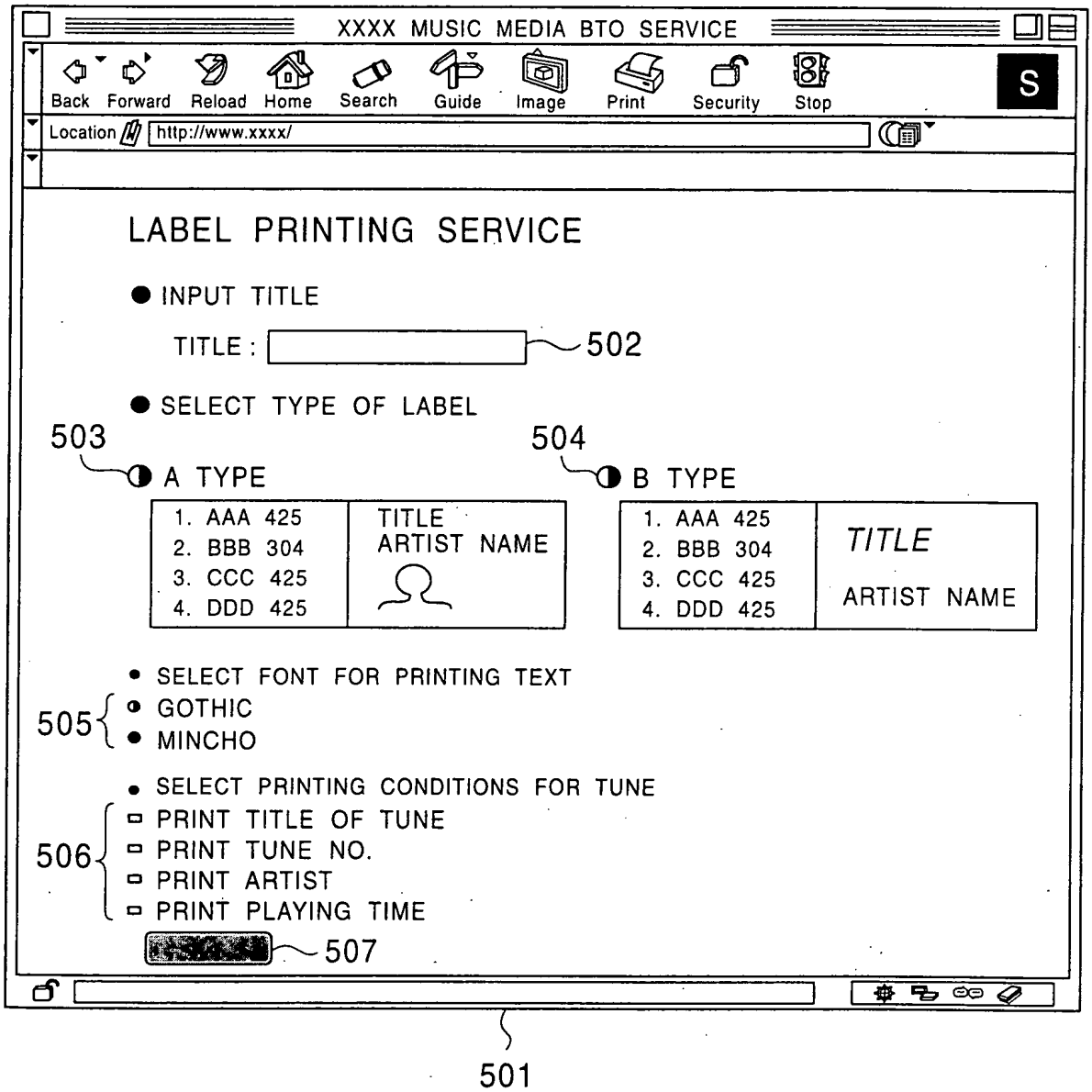

START LABEL PRINTING PROCESSING
S231
ACCESSED BY CLIENT?
NO
YES
TRANSMIT MENU PAGE TO CLIENT
S232
RECEIVE INFORMATION RELATING TO LABEL
S233
PERFORM SIGNAL PROVIDING PROCESSING
S234
S235
SIGNAL PROVIDING OK?
NO
S236
TRANSMIT ORDER UNACCEPTABLE PAGE
YES
TRANSMIT ORDER ACCEPTED PAGE
S237
PRINT LABEL
S238
DELIVER LABEL
S239
INVOICE CREDIT COMPANY FOR PURCHASED AMOUNT
S240
RECEIVE PAYMENT OF INVOICED AMOUNT FROM CREDIT COMPANY
S241
END

FIG. 38


XXXX MUSIC MEDIA BTO SERVICE
Back
Forward
Reload
Home
Search
Guide
Image
Print
Security
Stop
S
Location
http://www.xxxx/
LABEL PRINTING SERVICE
INPUT TITLE
TITLE :
502
SELECT TYPE OF LABEL
503
A TYPE
1. AAA 425
2. BBB 304
3. CCC 425
4. DDD 425
TITLE
ARTIST NAME
504
B TYPE
1. AAA 425
2. BBB 304
3. CCC 425
4. DDD 425
TITLE
ARTIST NAME
SELECT FONT FOR PRINTING TEXT
505
GOTHIC
MINCHO
SELECT PRINTING CONDITIONS FOR TUNE
506
PRINT TITLE OF TUNE
PRINT TUNE NO.
PRINT ARTIST
PRINT PLAYING TIME
507
501